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REAUTHORIZATION OF THE MOTOR CARRIER SAFETY ASSISTANCE PROGRAM (MCSAP): OPTIONS INTENDED TO IMPROVE HIGHWAY SAFETY

PRINTED AT THE DIRECTION OF

HON. ERNEST F. HOLLINGS, *Chairman*

FOR THE USE OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

UNITED STATES SENATE

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LETTER OF TRANSMITTAL

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC, February 18, 1991.

DEAR COLLEAGUE: As Chairman of the Senate Committee on Commerce, Science, and Transportation, I am pleased to provide you with a Committee Print entitled: "Reauthorization of the Motor Carrier Safety Assistance Program (MCSAP): Options Intended to Improve Highway Safety." This study was prepared at the request of the Committee by the Congressional Research Service of the Library of Congress.

Our Committee has oversight responsibilities to ensure the efficiency and effectiveness of motor carrier safety programs under the jurisdiction of the Federal Highway Administration. In light of our continuing interest in improving commercial motor vehicle safety, I believe that this CRS report will prove extremely useful, especially in our efforts to reauthorize MCSAP during the 102nd Congress.

While this report has been neither approved, disapproved or considered by the Committee, I believe that it will benefit all of our Members and their staff.

Sincerely,

ERNEST F. HOLLINGS, *Chairman.*

LETTER OF SUBMITTAL

THE LIBRARY OF CONGRESS,
CONGRESSIONAL RESEARCH SERVICE,
Washington, DC, February 1, 1991.

HON. ERNEST F. HOLLINGS, *Chairman*
HON. JOHN C. DANFORTH, *Ranking Minority Member, Committee on Commerce, Science, and Transportation, U.S. Senate, Washington, DC.*

DEAR SENATORS: In response to your request, we are forwarding our report entitled, "Reauthorization of the Motor Carrier Safety Assistance Program (MCSAP): Options Intended to Improve Highway Safety."

The purpose of this report is threefold: (1) to survey the various policy issues that are important components of the reauthorization of MCSAP, (2) to present four possible funding levels for future MCSAP efforts, and (3) to analyze options intended to improve the effective and efficient implementation of this important truck and bus safety program.

This CRS report was written by Dr. Paul F. Rothberg of our Science Policy Research Division.

I trust that his report will serve the needs of your Committee as you review the contributions of MCSAP to commercial motor vehicle safety and consider the future of this program.

Thank you for the opportunity to assist your Committee.

Sincerely yours,

JOSEPH E. ROSS, *Director.*

SELECTED LIST OF ABBREVIATIONS AND ACRONYMS USED

ABA—American Bus Association

ATA—American Trucking Associations

CDL—Commercial Drivers License

CRS—Congressional Research Service

CVSA—Commercial Vehicle Safety Alliance

FHWA—Federal Highway Administration

FMCSR—Federal Motor Carrier Safety Regulations

GVW—gross vehicle weight

HMTR—Hazardous Materials Transportation Regulations

MCSAP—Motor Carrier Safety Assistance Program

NHTSA—National Highway Traffic Safety Administration

NLETS—National Law Enforcement Telecommunications System

NTSB—National Transportation Safety Board

SEP—State Enforcement Plan

STAA—Surface Transportation Assistance Act of 1982

VMT—vehicle miles travelled

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EXECUTIVE SUMMARY

The Chairman and the Ranking Member of the Senate Committee on Commerce, Science and Transportation requested the Congressional Research Service (CRS) to analyze various options intended to improve the Motor Carrier Safety Assistance Program (MCSAP). In responding to the Committee's request, this report:

—surveys the various policy issues that are important components of the reauthorization of MCSAP;

—presents four possible funding levels for future MCSAP efforts; and

—analyzes possible amendments to the Surface Transportation Assistance Act of 1982 (STAA), which established MCSAP, that are intended to improve the effective and efficient implementation of this important truck and bus safety program.

Consequently, this report does not consider the options of reducing or eliminating MCSAP.

Before FY 1992, Congress is likely to reauthorize MCSAP, one of the largest and most successful Federal/State efforts designed to promote commercial motor vehicle safety. This program has helped to save lives, decrease the number of injuries, and reduce accident rates of crashes involving commercial motor vehicles. MCSAP enjoys wide respect by almost all of the parties involved. Improvements can be pursued, however, to strengthen this program. This report discusses numerous options designed to improve MCSAP. The costs of these options to the Highway Trust Fund, which finances MCSAP, are projected within the context of different funding levels for the future of MCSAP. The combined cost of all but one of these options is projected to be less than the potential economic benefits that are likely to result from reduced accident costs, even if only an extremely minor reduction in accident costs occur.

Based on an extensive review of this program during the last three years including discussions with over 100 State, Federal, and industry employees concerned with truck and bus safety and visits to numerous inspection sites, several fundamental conclusions stand out:

Despite its numerous benefits to safety, the existing MCSAP is not a comprehensive or a strategically designed program. The current program does not address many of the driver-related causes of accidents involving commercial motor vehicles. If a more effective MCSAP effort is desired, the most important changes would be to enable this program to more effectively enforce the Commercial Drivers Licensing (CDL) requirements, promote increased drug and alcohol enforcement, and pay for traffic enforcement targeted to commercial motor vehicles when coupled with MCSAP inspections. Increased driver education programs, more training to improve the quality of hazardous materials transportation in-

spections, improved data analysis, and better use of technology also would be helpful.

In addition to maintaining a core inspection program in each of the participating States, additional MCSAP funds could be used to increase attention devoted to driver-related factors causing accidents. For example, several successful State programs have demonstrated that trained officers can simultaneously conduct inspections of the driver (including alcohol and drug enforcement work), tailored inspections of the vehicle, and traffic enforcement targeted to commercial operators. Such a carefully designed approach to highway safety under an expanded MCSAP would allow for cost efficiencies and improved program management that is not possible under any other federally-supported effort pertaining to highway safety. By strengthening MCSAP in this manner, existing problems with splintered and unevenly effective highway safety programs affecting trucks and buses should be significantly reduced. Most importantly, under the coordinated umbrella of one program, increased attention would be devoted to the major factor causing accidents, i.e., driver error.[1]

Among many in the law enforcement community, there appears to be wide agreement that if the changes specified above were implemented with sufficient funding, MCSAP would be substantially improved. Many law officers, the Federal Highway Administration (FHWA) which allocates MCSAP funds, and even some industry spokesman seek the funding increases that would be needed to strengthen this program. There is disagreement, however, as to the ways that MCSAP could best be improved.

This report considers various funding options regarding the size and future direction for MCSAP, which is now funded at roughly $48.5 million per year with Federal monies. It outlines how this important highway safety initiative might expand and evolve during the next three years. Four different funding options, ranging between $55 million and $70 million per year for an exclusively safety-oriented program are considered in detail. If weight enforcement were eligible for MCSAP reimbursement, roughly $70 million to $100 million per year would be required to conduct a combined safety and weight program.

The rest of this executive summary elaborates on the challenges facing MCSAP, presents the key conclusions of this report, and offers options intended to improve the effectiveness and efficiency of this important safety program.

SAFETY CONCERNS SUGGEST THAT THE CORE ROADSIDE INSPECTION EFFORT STILL NEEDS TO BE THE BACKBONE OF MCSAP

During FY 1989, MCSAP safety inspectors detected an average out-of-service rate on vehicles of roughly 34 percent and on drivers of 7 percent. These high rates argue for continuance of MCSAP's core inspection program to assure that the commercial vehicle accident rate does not rise significantly. To maintain an effective enforcement presence, MCSAP inspectors using Federal funds will probably need to conduct at least 85 percent of the current core inspection effort, or roughly 1.15 million inspections per year. This number partly reflects an average of recent years inspection levels and a judgement. If the current level of highway safety is to be maintained, this size of effort will need to continue at least until the out-of-service rate shows a substantial decrease from current rates.

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[1] For purposes of this report, driver error includes unsafe operating performance or any form of impairment.

Although the Federal Motor Carrier Safety Regulations (FMCSR) cover certain vehicles with a gross vehicle (or combination) weight rating (GVW) of 10,001 or more pounds, many of the States participating in MCSAP focus their inspections primarily on trucks with a GVW of 26,001 or more pounds.[2] One way for MCSAP to become a more comprehensive and uniform program would be to conduct more inspections of commercial motor vehicles with a GVW of 10,001 to 26,000 pounds than is currently occurring. At least two to three million dollars per year of additional funds for inspectors operating in areas formerly known as "commercial zones" would be required to bring more balance of effort into the core inspection program.

INCREASED FOCUS ON THE DRIVER IS CRITICAL AND THE CHANGE IN MCSAP MOST LIKELY TO IMPROVE THE EFFECTIVENESS AND TARGETING OF INSPECTIONS AND REDUCE ACCIDENT RATES SUBSTANTIALLY BELOW CURRENT LEVELS

MCSAP to date has accomplished much of what it was supposed to do—foster an effective vehicle/driver inspection effort. Throughout the eight-year history of MCSAP, FHWA has placed a major emphasis on increasing the number of inspections. Because of the work of the FHWA and the Commercial Vehicle Safety Alliance (CVSA), the quality of MCSAP inspections also has gradually improved.[3] FHWA is beginning to encourage the MCSAP States to focus more on the driver. But, as explained below, much more could be done to improve the effectiveness and targeting of these inspections on driver-oriented accident causes.

Although accident causation is difficult to determine, there is a large body of knowledge that indicates that driver operating error is the major cause of accidents involving commercial vehicles. This conclusion is reached in numerous studies (cited in text) and is confirmed by the experiences of safety experts interviewed for this study.[4]

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[2] The FMCSR also cover other types of specified vehicles, e.g., certain vehicles transporting more than 15 passengers, including the driver, and certain vehicles transporting hazardous materials in a quantity requiring placarding according to U.S. Department of Transportation regulations. Because of the changing nature and complexity of the Federal safety regulations, the reader should refer to the "Code of Federal Regulations" and the "Federal Register", and should not rely on the regulatory information summarized in this report.

[3] CVSA is primarily an association of State and Canadian law enforcement personnel concerned with motor carrier safety.

[4] Fatigue may cause a great deal of driver error, but it is difficult to measure and enforce against, other than by reviewing driver log books. Because some driver logs are inaccurate and because there are many components of fatique that are not measured by driver logs, there are many limitations with this enforcement technique.

Traffic Enforcement Under MCSAP Would Save More Lives

MCSAP is not currently designed or intended to address effectively "on highway" driver errors that involve such critical safety violations as speeding, improper lane changes, and following too closely. (This is left to State and local governments.) MCSAP does not pay for traffic enforcement activities.[5] Other federally supported traffic enforcement programs, which are managed by the National Highway Safety Administration (NHTSA), that do address driver error, are stretched so thinly that the attention directed at operators of commercial motor vehicles is minimal at best. In fact, NHTSA's traffic enforcement grant programs are not designed or intended to meet the long-term needs of the truck and bus enforcement community. Consequently, this report concludes that because of the nature of NHTSA's 402 or 403 grant programs, it would be more effective and efficient to expand MCSAP than to create a separate funding program to increase traffic enforcement related to commercial vehicles under NHTSA's programs. If traffic enforcement coupled to an inspection program becomes an allowable MCSAP expense, MCSAP should be able to increase its contribution to safety substantially.

FHWA has indicated that a change in MCSAP's role in traffic enforcement is unwarranted. Under an expanded MCSAP, FHWA, however, would consider demonstration projects to promote traffic enforcement affecting commercial motor vehicles.[6]

MCSAP Could Play a Greater Role in Drug Interdiction and Drug Testing and Enforcement

In the law authorizing MCSAP, there is no specific guidance regarding the use of MCSAP funds for drug enforcement and drug interdiction activities. MCSAP's involvement in drug interdiction is of recent origin and has been stimulated by initiatives fostered primarily by FHWA and the U.S. Senate Committee on Appropriations in FY 1990 and the House Committee on Appropriations in FY 1991. There is no specific statutory direction from Congress that drug interdiction activities targeted at commercial vehicles should continue permanently under MCSAP. These activities are now funded at roughly $800,000 per year with earmarked Federal funds in the FY 1991 budget. The extent to which FHWA and the MCSAP States will continue their support of drug-related activities under MCSAP is uncertain and depends heavily on the availability of funds.

In the MCSAP reauthorizing legislation, Congress could specify a role for MCSAP in drug interdiction and drug use enforcement activities. A small amount of MCSAP dollars also could be used to conduct more training to recognize the impaired driver and drug use testing under legally acceptable conditions. Although one could argue that anti-drug efforts are heavily funded through other programs and that MCSAP funds used for drug interdiction and testing activities reduce the amount of MCSAP funds available for other purposes, there appears to be wide support for MCSAP's role in drug enforcement and interdiction activities.

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[5] An exception to this is a $300,000 initiative funded in the FY 1991 DOT Appropriations Act.

[6] FHWA responses to questions raised by Senator Lautenberg as part of a hearing before a Subcommittee of the Senate Appropriations Committee, 1990.

MCSAP Could Play an Increased Role in the Enforcement of Alcohol Use Regulations

With sufficient funding, MCSAP could more effectively help enforce restrictions regarding alcohol use and possession by commercial motor vehicle operators. To achieve this objective, more MCSAP personnel would need to be trained better in techniques to recognize the impaired driver, especially those MCSAP officers that are not sworn law enforcement, i.e., police officers. Increased availability of on-scene and legally acceptable portable breath analyzers would help improve enforcement. MCSAP funds have rarely been used to pay for alcohol detection equipment; and only rather limited NHTSA funds targeted at commercial operators are available for this purpose.

In the MCSAP reauthorizing legislation, Congress might consider specifying a more definitive role for MCSAP officers in alcohol enforcement activities. On the other hand, it could be left to FHWA and the States to make this an emphasis area. But either way, sufficient funds will need to be devoted if increased alcohol enforcement is desired.

TECHNOLOGY IS A MAJOR KEY TO IMPROVING THE EFFECTIVENESS AND EFFICIENCY OF MCSAP

MCSAP inspectors examine driver's licenses, log books and medical cards, but these reviews do not usually enforce driver operating regulations other than hours-of-service limitations. Because log books can be falsified easily and the status of the driver's license is generally not checked thoroughly in many States, the roadside review of the driver conducted as part of a MCSAP inspection may often be of questionable value. If a more effective driver-oriented inspection is desired, more checks of the status of drivers' commercial licenses and the validity of drivers' logs are needed. Technology, which is often costly, is available to accomplish this.

MCSAP could be strengthened if State officials had the resources to make better use of advanced technologies, such as integrated systems that couple existing databases with computer-based data collection, retrieval, communication, and analysis systems. For example, the use of scarce inspection dollars could be maximized if the past inspection history of the driver and vehicle or trailer were instantly available to, and easily updated by, the inspector at the roadside. New information technology could be used to target inspections, to avoid repetitive inspections, to check the status of the licenses of an appropriate but substantial percentage of commercial drivers and to check drivers' logs during carrier reviews. When the resulting benefits of increased productivity are considered, the costs of many of these technologies may well be within reason. Although some of the MCSAP States with FHWA's encouragement are testing new technologies, these efforts are severely constrained because of funding limits.

Innovations and growth in MCSAP could be fostered by research and development (R&D) and technology transfer activities, including timely evaluation of new technologies. The R&D dollars that underpin progress in MCSAP are extremely limited. There is no separate R&D and technology transfer account to advance the MCSAP effort. Research for this program is funded out of the R&D budget of FHWA's Office of Motor Carriers (OMC) or out of discretionary MCSAP funds. Because there are numerous competing demands on these dollars, Congress might consider establishing a separate R&D account to support advances needed to make maximum, cost-effective use of technology in MCSAP.[7] These funds could be used for a variety of purposes, including the continuation of a long-term R&D program to develop a reliable and legally acceptable means to detect driver fatigue. Such a proven technology, if achievable, would improve the effectiveness of the MCSAP inspection.

IF MCSAP IS TO BE MORE EFFECTIVE, THE CURRENT FEDERAL/STATE PARTNERSHIP NEEDS TO INVOLVE MORE LOCAL GOVERNMENTS[8]

The current MCSAP is a partnership between the FHWA and almost all of the States. In many States, local governments are not directly involved in MCSAP. If sufficient funds existed, and provided that quality control and uniformity of inspections and data collection is maintained, there are numerous benefits of making greater use of local law enforcement officers to promote commercial vehicle safety. If MCSAP funds could pay for commercial traffic enforcement when coupled with an inspection, the opportunity to integrate MCSAP and local governmental enforcement efforts more closely would increase.

APPROXIMATELY $55 TO $70 MILLION OF FEDERAL FUNDS PER YEAR WILL BE NEEDED TO MAINTAIN A VIGOROUS MCSAP EFFORT WITH INCREMENTAL GROWTH; SUBSTANTIALLY MORE WOULD BE NEEDED IF A TARGETED WEIGHT ENFORCEMENT PROGRAM IS TO BECOME ELIGIBLE FOR REIMBURSEMENT UNDER MCSAP

When MCSAP is reauthorized for FY 1992 through FY 1994, Congress could substantially strengthen this already successful program. This report presents four different funding options: No. 1, a "small increase" option to $55 million per year which would fund minimal growth of the current effort but no traffic enforcement activities targeted at commercial operators; No. 2, a "minor improvement" option to $60 million annually with increased traffic enforcement; No. 3, a "moderate increase" option to the $65 million per year level with funds available for a comprehensive effort; and No. 4, an "expansive" option to $70 million per year with substantial funds available for a vigorous effort. If Congress decides to include weight enforcement as an eligible MCSAP expense, reasonable per year cost estimates suggest that roughly $70 million would be required for option No. 1, $75 million for option No. 2, $85 million for option No. 3, and $100 million for option No. 4.

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[7] Because some of the R&D needs of the OMC are closely related to those of MCSAP, the funding needs of both efforts could be combined.

[8] For purposes of this report, the term "local governments" includes all non-State governmental entities except Federal officers.

In deciding the future level of MCSAP funding, it is of key importance to consider the current funding situation. Competition for discretionary MCSAP funds is extremely intense and some States must depend on discretionary grants to support inspector personnel.[9] Without additional funds, there will be a decline in the benefits that have resulted from this program. With additional funding, there are opportunities to apply new initiatives, technologies, and more strategic approaches to improve MCSAP and motor carrier safety.

AMENDMENTS TO THE SURFACE TRANSPORTATION ASSISTANCE ACT OF 1982 WOULD BE NEEDED IF MCSAP IS TO BECOME A MORE COMPREHENSIVE AND EFFECTIVE PROGRAM

The Surface Transportation Assistance Act of 1982 (STAA), which established MCSAP, provides rather limited congressional guidance on the scope, nature, and extent of MCSAP. If MCSAP is to evolve into a more comprehensive and strategically designed program, several amendments to the STAA would be necessary. The options presented in this report are categorized according to four broad areas: the driver, effectiveness and efficiency, administrative concerns, and uniformity. Because achieving a balance between specificity and flexibility is important, only some options are presented as potential requirements.

Legislative options include the following:

INCREASE ATTENTION ON THE DRIVER

Option No. 1 would require that an appropriate but substantial percentage of the MCSAP inspections conducted by the start of FY 1994 check the status of the Commercial Driver's Licenses, and authorize up to $5 million to be spent over the next three years on the purchase and use of technology necessary to implement this requirement;

Option No. 2 would strongly encourage, perhaps even require, the MCSAP States to conduct targeted traffic enforcement efforts coupled with MCSAP inspections focused primarily on the driver;[10]

Option No. 3 would provide sufficient funds to train police traffic personnel other than designated MCSAP officers to conduct primarily "driver only" MCSAP inspections in conjunction with traffic stops initiated because of probable cause violations;

Option No. 4 would encourage the States to participate in MCSAP's drug awareness and interdiction activities and alcohol and drug enforcement by providing funding to cover the costs of participation. The type of participation will vary with the training and enforcement responsibility of the officer;

Option No. 5 would establish specific congressional guidance on the role that MCSAP should have in the enforcement of the .04 percent blood alcohol concentration restriction, e.g., by establishing specific requirements in the grant application process for increased alcohol awareness training and enforcement;

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[9] Discretionary grants are subject to availability each year and are not distributed by any formula. For purposes of this report, discretionary funds are all MCSAP funds other than those provided under the basic formula grant.

[10] The type of inspection would depend on the roadside conditions and the training of the officer.

Option No. 6 would encourage MCSAP States to provide more educational assistance to the motor carrier industry, and in cooperation with NHTSA, to conduct effective "safe driving" education programs for both the motor carrier industry and the motoring public;

INCREASE EFFECTIVENESS AND EFFICIENCY

Option No. 7 would promote more commercial enforcement activities by local government officers that meet CVSA certification standards, follow CVSA procedures, and are overseen by the State lead agency;

Option No. 8 would improve the comprehensiveness and quality of the hazardous materials inspections funded by MCSAP by providing for additional training targeted for a select group of specially trained and motivated officers; additional Federal cost up to $2 million over three years;

Option No. 9 would require States and participating local governments to submit accident and inspection information to SAFETYNET;

Option No. 10 would authorize weight enforcement to be an eligible MCSAP expense but only when coupled to a MCSAP inspection and a specific safety problem;

IMPROVE FHWA OR MCSAP ADMINISTRATIVE IMPLEMENTATION

Option No. 11 would require FHWA to conduct a formal rulemaking that might lead to changes in the current formula used to determine the distribution of MCSAP funds. In addition to those factors now used, FHWA could be directed to consider the feasibility of including such factors as the depth and dimensions of a State's motor carrier safety efforts; the extent of and progress towards addressing a State's motor carrier safety problems including its accident statistics; the productivity, effectiveness, and efficiency of a State's efforts; the degree of compatibility of a State's motor carrier safety regulations with the Federal regulations; and ways to reward innovative and successful programs;

Option No. 12 would provide FHWA headquarters and field offices with an adequate number of staff to effectively manage the increased scope and responsibilities inherent in any statutory expansion of MCSAP;

Option No. 13 would establish a separate research, development and technology transfer account under MCSAP (similar to NHSTA's 403 program) for use by FHWA with State assistance to advance innovations that strengthen and improve MCSAP;

Option No. 14 would require States to calculate a new baseline using an average of FY 1988, 1989, and 1990 State expenditures allocated for commercial motor carrier safety to ensure that any additional Federal dollars allocated for MCSAP are not substituted for State dollars;

Option No. 15 would specify that a driver convicted for the first time of violating an out-of-service citation shall be disqualified from driving a commercial motor vehicle for a period of not less than one year and be penalized $1,000, and then disqualified permanently thereafter for a second offense in addition to receiving another $1,000 penalty. Also, Congress might specify that any carrier that requires a driver to violate an out-of-service citation shall be subject to a civil penalty of up to $20,000;

IMPROVE UNIFORMITY

Option No. 16 would clarify the intent of the Surface Transportation Assistance Act of 1982 regarding requirements for the compatibility of State interstate and intrastate motor carrier safety regulations with the Federal regulations as a condition for receiving MCSAP funds;[11]

Option No. 17 would encourage the States to conduct more inspections of drivers and vehicles operating in the former commercial zone areas (or exempt intracity areas), including those vehicles with a gross vehicle weight rating of 10,001 to 26,000 pounds;

Option No. 18 would encourage more of the States to conduct more safety and compliance reviews or similar types of audits compatible with FHWA policies and procedures;

Option No. 19 would authorize or direct FHWA to develop specific guidelines for MCSAP inspectors describing when and the conditions under which buses should be inspected using MCSAP dollars. These guidelines could be designed to minimize the potential safety risks of such inspections and to minimize inconvenience to passengers. Such guidelines could be developed in cooperation with the American Bus Association, United Bus Owners of America, and the Commercial Vehicle Safety Alliance;

Option No. 20 would require FHWA, in consultation with the CVSA and other appropriate organizations, to prepare a report on the problems associated with the issuance of penalties resulting from violations noted during MCSAP-sponsored enforcement activities. The report could also address the acceptance level of the CVSA recommended penalty schedule;[12] and

Option No. 21 would require FHWA, in consultation with CVSA, to conduct a study on the use and effectiveness of the CVSA decal and to recommend ways to increase the acceptance of the CVSA decal.

Substantial progress towards implementing all of these options, except for option No. 10 dealing with weight enforcement, would require adding a minimum of roughly $13 million dollars annually to the MCSAP budget. Funding for most of these options would require additional monies to be drawn from the Highway Trust Fund, which finances MCSAP. Monies from this fund already support a variety of other national transportation needs and important safety programs, such as road construction and other highway safety programs.

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[11] The Federal/State partnership embodied in MCSAP has clearly demonstrated the numerous benefits of how a cooperative relationship may promote motor carrier safety. Continuing difficulties in this relationship are largely attributable to uncertainties regarding the need to achieve uniformity primarily between intrastate motor carrier safety regulations and Federal motor carrier safety regulations. Congress may wish to clarify the intent expressed in the Surface Transportation Assistance Act as to whether and the extent to which these two types of regulations should be compatible and what compatibility means.

[12] If the current CVSA efforts at promoting uniformity in penalty assessments prove unsuccessful, Congress might consider authorizing the Secretary to develop a specific penalty schedule that must be implemented by all governmental entities receiving MCSAP funds. This would be extremely difficult to implement effectively.

The following table presents one or two of the major expected costs and benefits of each of the options discussed in the report.

Increased Attention on the Driver	*Major Benefit*	*Major Cost or Disadvantage* [13]
Option #1. Increased CDL enforcement	Get disqualified drivers off the road	Roughly $4 to $5 million initial cost to set up communication systems
Option #2. Traffic enforcement when coupled to an inspection to be an eligible MCSAP expense	Targeted to driver errors which are major factors in accident causation	Costs roughly $5 to $10 million per year
Option #3. More training funds to promote more driver-only inspections by non-MCSAP officers	More attention to driver, which is the major causal accident factor, increased leverage of more officers	Minimal cost; already part of core program
Option #4. Increased drug and alcohol enforcement	Get impaired driver off the road	Costs probably less than $2 million per year
Option #5. Establish specific requirements in the SEP process for increased role that MCSAP should play in alcohol enforcement	Underscores the importance of this activity	Some could say it is not needed because it is already part of inspection process
Option #6. Increased public/driver education program to augment existing efforts	Increased focus on the public's role in safety	Minimal cost
Increased Effectiveness and Efficiency	*Major Benefit*	*Major Cost or Disadvantage*
Option #7. Increased use of local enforcement officers, especially in areas formerly known as commercial zones	More inspections off the interstates and major roads, increased enforcement in the former commercial zone	Additional costs to the core program; quality control must be maintained
Option #8. Improved enforcement of hazardous materials transportation regulations	Improved safety of these shipments	Cost up to $2 million over 2- to 3-year period for additional specialized training
Option #9. Required submittal of information to SAFETYNET	Improved national data base	Part of the core program
Option #10. Weight enforcement designed to address specific safety problems	Increased safety, biggest safety bang for the buck	Substantial costs in the $15 to $30 million per year range

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[13] Increased enforcement may result in some cases in increased transportation costs.

Improved FHWA or MCSAP Administrative Implementation	*Major Benefit*	*Major Cost or Disadvantage*
Option #11. Revise the distribution formula for MCSAP funds	Fairer distribution may be possible; also one that rewards innovative MCSAP activities	FHWA believes the current formula works well
Option #12. Additional FHWA staff to administer and manage MCSAP	Increased Federal oversight of State expenditures	Costs less than $200,000 a year, some State officials believe that there is already too much Federal management of this program
Option #13. Separate research, development; and technology transfer account for MCSAP	Improve the technological foundation for MCSAP	About $2 million a year
Option #14. Require States to calculate a new baseline of expenditures to implement MCSAP's 80/20 formula	Ensures that Federal dollars are not substituted for State dollars currently allocated for motor carrier safety	Minimal costs
Option #15. Specify strict penalties for drivers convicted of violating an out-of-service order	Increase the risk of a driver trying to subterfuge the purpose of MCSAP	Stiff penalties that could take away someone's job for a year
Improved Uniformity	*Major Benefit*	*Major Cost or Disadvantage*
Option #16. Clarify 1982 congressional intent regarding State intrastate regulatory compatibility with Federal regulations	Promotes compliance, could reduce conflict between some MCSAP States and FHWA	Some States could drop out of MCSAP if Congress sides with FHWA's policy of uniformity and its interpretation of the 1982 statute
Option #17. More inspections in the commercial zone	Levels the playing field for different operators, promotes a more comprehensive MCSAP	Cost of $2 to $3 million per year
Option #18. Broader State participation in more safety and compliance reviews	Would help FHWA reduce its workload backlog	Fewer roadside inspections, less money available for other MCSAP activities
Option #19. Guidelines for locations of bus inspections	Could lessen chance of accidents during inspections	Micromanagement. Does Congress need to get involved?
Option #20. Report on issuance of penalties by MCSAP States	Oversight of a continuing problem	Minimal cost
Option #21. Report on use of CVSA decal	Oversight of a continuing problem	Minimal cost

PERFORMANCE-ORIENTED APPROACH

An alternative approach to the various options previously outlined would be for Congress to: increase substantially the amount of funds available for MCSAP, and specify in the reauthorizing legislation that MCSAP States in their State Enforcement Plans shall design programs to accomplish certain national objectives, such as:

- getting the impaired commercial driver off the road, e.g., by increasing alcohol and drug use enforcement;
- ensuring that effective enforcement of the commercial drivers license and relevant traffic regulations is occurring;
- devoting sufficient attention to the enforcement of regulations pertaining to bus and hazardous materials transportation safety;
- supporting adequate drug interdiction activities involving commercial motor vehicles relative to the size and extent of the problem in a specific jurisdiction;
- promoting effective use of local governmental enforcement officers to promote commercial vehicle safety; and
- ensuring compliance with the motor carrier safety and hazardous materials transportation regulations.

When compared to the option of earmarking of funds for specific objectives within MCSAP, this type of performance standard would provide maximum flexibility to FHWA and State program managers. FHWA would be assigned the responsibility to ensure that each of the State's are implementing these objectives. Flexibility to continue to meet specific State and local safety problems would remain important.

This approach, however, substantially constrains congressional opportunities to influence the future direction and allocation of funds within the MCSAP. It is also uncertain whether FHWA would ensure that the States implement motor carrier safety programs that accomplish all of these objectives; congressional oversight might be adopted as considered appropriate.

Another alternative would be to add these and other performance-oriented objectives to the organic legislation that established MCSAP together with one or two earmarkings of funds in areas considered by Congress to be especially important. These might include $1.5 million per year for the next three years for increased CDL enforcement including a check of the status of the licenses presented by drivers at inspections, and $5 million per year for increased traffic enforcement coupled with a MCSAP inspection. This approach could provide for maximum flexibility while providing some assurance that funds are spent on high priority areas of concern to Congress.

INTRODUCTION

The Chairman and the Ranking Member of the Senate Committee on Commerce, Science and Transportation requested the Congressional Research Service (CRS) to analyze various options that might be considered when MCSAP is reauthorized. MCSAP is currently authorized through FY 1991. This report responds to the Committee's request and is designed to:

—survey the various policy issues that are important components of the reauthorization of MCSAP;

—present four possible funding levels for future MCSAP efforts; and

—analyze possible amendments to STAA, which established MCSAP, that are intended to improve the effective and efficient implementation of this important truck and bus safety program.

SCOPE AND LIMITATIONS AND RESEARCH METHODOLOGY

In a 1988 report to the Senate Committee on Commerce, Science and Transportation, CRS analyzed the effectiveness, accomplishments, problems, costs, and benefits associated with MCSAP. Although the program has improved in a few areas since this report was issued, the general conclusions of the 1988 report remain valid. The reader is referred to the 1988 report for general background information on MCSAP's purposes, structure, implementation, and areas of concern associated with this program.[14]

This report does not update the information previously presented in the 1988 study. The major purpose of this report is to present options that might be useful as the Committee considers legislation that would reauthorize MCSAP.

This report seeks to answer such questions as:

1. In what ways could MCSAP be improved during the fiscal years 1992 through 1994?
2. What specific legislative changes might be considered to make MCSAP a more effective and efficient program?
3. What is the range of reasonable funding levels that might be expected to be required to support a more innovative, expanded, and effective MCSAP? What new initiatives could be funded with these monies?
4. What could be the role of MCSAP with respect to promoting enforcement of traffic safety laws and regulations, expanding drug and alcohol enforcement and drug-interdiction activi-

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[14] U.S. Congress. Senate. Committee on Commerce, Science, and Transportation. Motor Carrier Safety Assistance Program (MCSAP): Options Intended to Improve A Generally Successful and Cooperative Federal/State Partnership Promoting Truck and Bus Safety. S. Print 100-109. 100th Cong., 2d Sess., Washington, U.S. Govt. Print. Off., 1988. 72 p.

ties, and strengthening existing weight-enforcement activities as applied to commercial motor vehicles? and

5. How can technology be used to enhance MCSAP's contributions to safety?

The analysis presented in this report is based on a review of: numerous FHWA documents; State Enforcement Plans (SEPs) submitted as part of the MCSAP grant application process; visits to inspection sites in California, Maryland, West Virginia, Connecticut, South Carolina, Missouri, Oregon, Florida, and Colorado; and indepth discussions with MCSAP officers from some 20 States, including Michigan, Louisiana, Washington, Alabama, Idaho, North Dakota, Arizona, Oklahoma, New York, Oklahoma, New Jersey, Nevada, and officers from all of the States that were visited. In addition, employees or representatives of the National Tank Truck Carriers Association, the American Trucking Associations, National Private Truck Council and its safety committee, American Insurance Services Group, Systems Technology Applications, Inc., the National Transportation Safety Board, the American Association of Motor Vehicle Administrators, the Hazardous Materials Advisory Council, the Federal Highway Administration, the National Highway Traffic Safety Administration, the Research and Special Programs Administration, the Cooperative Hazardous Materials Enforcement Development Program and the CVSA were consulted during the preparation of this report.

This report does not address many concerns associated with MCSAP that are now being addressed by the CVSA. These include: inspector training and certification leading towards improved inspections, and criticisms and complaints dealing with specific MCSAP inspections which are now tracked by the CVSA. These concerns, although important, are judged to be more administrative matters that are likely to be handled by the CVSA. This report focuses instead on broader policy concerns thought to be of primary interest to those in Congress concerned with the future of MCSAP.

ACKNOWLEDGEMENTS

The author gratefully acknowledges the substantial assistance that was provided to CRS by the MCSAP community during the preparation of this report. Special appreciation is expressed to Sgt. Thomas Magnan of the St. Louis Metropolitan Police Department, Paul Henry of the Oregon Public Utility Commission, Capts. David Rich and Saundra DeKlotz of the Idaho State Police, Lt. Col. James Daust and Lt. Bill Murphy of the Michigan State Police, Lt. Steve Hermann of the Arizona Highway Patrol, Lts. Steve Davis and Don Uelmen and Captain Larry Rollins of the California Highway Patrol, William Fiste of the Commercial Vehicle Safety Alliance, Stephen Campbell, Lana Batts and Gerald Davis of the American Trucking Associations (ATA), Inc., John Eicher and Mike Trentacoste of the Federal Highway Administration, Paul Melander of the Tennessee Public Service Commission, Maj. Stephen Anders of the Kentucky Division of Motor Vehicle Enforcement, Lt. Gary Thomas of the Oklahoma Highway Patrol, and Claude Harris of the National Transportation Safety Board (NTSB).

MOTOR CARRIER SAFETY, ACCIDENT CAUSATION, AND THE FUTURE OF MCSAP

This chapter presents a broad overview of motor carrier safety and the role that MCSAP plays in addressing this transportation concern. Accident causation factors are reviewed, and the role of MCSAP in addressing these factors is assessed. Special attention is directed at driver operating errors and the current limited role that MCSAP exerts on this most important causal factor. Once this analysis is presented, the key question is asked: What should be the future direction of MCSAP?

MOTOR CARRIER SAFETY: A CONTINUING PROBLEM AND CHALLENGE

It is well known that existing commercial motor vehicle accident and travel data could be substantially improved, but additional costs would be encountered. As a recent Transportation Research Board report concluded, "existing truck accident and travel data programs do not provide adequate information for essential government regulatory, enforcement, or planning functions." [15]

Even though reliable estimates of overall truck safety performance are unavailable, there are some measures of nationwide safety data that are frequently cited. According to a recent study, there were about 330,000 police-reported crashes involving trucks weighing 10,000 or more pounds in 1988.[16] Data on the total number of fatal accidents and fatalities, and data on the fatal accident rate per 100 million vehicle miles travelled (VMT) for crashes involving medium/heavy trucks weighing 10,000 pounds or more are presented in table 1. These data show that the fatal accident rate per VMT leveled off in 1987 and 1988, and declined in 1989. There is, however, considerable uncertainty regarding the accuracy of the VMT data. In absolute numbers, the total number of fatalities increased from 1986 to 1988. These data do not indicate whether these accidents were caused by commercial drivers or by the motoring public. Nevertheless, it is widely recognized that there are still too many trucks that are poorly driven and/or poorly maintained. Table 2 presents data on the total number of commercial motor vehicle accidents, fatalities, and injuries reported by interstate or foreign commerce motor carriers to FHWA [17]

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[15] Transportation Research Board. Data Requirements for Monitoring Truck Safety. Special Report 228. 1990. p. 1.

[16] U.S. Dept. of Transportation. NHTSA. A Summary of Fatal and Non-fatal Crashes Involving Medium and Heavy Trucks in 1988. DOT Technical Report. DOT HS 807 609. Feb. 1990. p. i.

[17] The number of accidents that are supposed to be reported, but are not, to FHWA's data system, may be roughly equal to 40 to 50 percent of those reported.

TABLE 1. Fatalities in Crashes Involving a Medium/Heavy Truck

(10,000 lbs or greater)

Year	Fatal accidents	Vehicle miles of travel (millions)	Fatal accident rate per 100 million VMT	Fatalities			
				Total	Truck occupant	Occupants of other vehicle	Non-occupant
1979	5,684	109,004	5.2	6,702	1,432	4,615	655
1980	5,042	108,491	4.6	5,971	1,262	4,084	625
1981	4,928	108,702	4.5	5,806	1,133	4,126	547
1982	4,396	106,880	4.1	5,229	944	3,790	495
1983	4,615	113,163	4.1	5,491	982	3,941	568
1984	4,831	123,927	3.9	5,640	1,074	4,036	530
1985	4,841	126,580	3.8	5,734	977	4,227	530
1986	4,785	130,141	3.7	5,579	926	4,088	565
1987	4,813	135,601	3.5	5,598	852	4,194	552
1988	4,885	141,397	3.5	5,679	911	4,250	518
1989	4,672	148,757	3.1	5,488	857	4,141	490

SOURCE: Fatalities—Fatal Accident Report System (FARS), NHTSA, Vehicle Miles of Travel, Federal Highway Administration (FHWA)

TABLE 2. FHWA Commercial Motor Carrier Safety Statistics

Year	1983	1984	1985	1986	1987	1988
Total Accidents	31,628	36,853	39,273	26,176	28,472	31,334
Fatalities	2,528	2,721	2,646	2,609	2,815	3,325
Injuries	26,692	29,149	28,988	25,092	27,450	31,440

Effective in 1986, the minimum reporting threshold for property damage accidents was increased from $2,000 to $4,200, and again in 1987 and subsequent years to $4,400 in order to more accurately account for the effects of inflation. This increase in dollar threshold caused what appeared to be a dramatic decrease in accident counts from 1985 to 1986. FHWA believes the increase in accidents reported in 1988 is primarily the result of more widespread compliance with the accident reporting regulations.

SOURCE: FHWA.

ACCIDENT CAUSATION FACTORS AND THE MCSAP INSPECTOR

Accidents have many causes. As discussed below, analysis of accident records involving heavy commercial vehicles "indicate that human factors, and more specifically driver errors, are the principal 'cause' of heavy truck accidents. Common occurrences associated with these factors include driver fatigue, reckless driving behavior, drug and alcohol use, and lack of adequate training." [18] According to an FHWA-sponsored study entitled "Identification of Preventable Accidents and their Causes," about 95 percent of preventable accidents are related to driver factors and about 5 percent are related to the vehicle.[19] Likewise, according to the OTA report entitled "Gearing Up for Safety," "human error is cited as the cause of over 60 percent of motor carrier accidents." [20]

Although MCSAP inspectors address a few of the key driver-related factors that affect safety, their efforts are inherently limited by the inspection process and the regulations they enforce. MCSAP inspectors examine the driver, his/her log book, medical certificate, and license. In many instances, MCSAP inspectors cannot easily tell if the driver is legally impaired because of drugs. Extensive training may be required to make such a determination. Without extensive auditing of carrier records, they often cannot readily detect whether the log book is falsified. Inspectors can be fooled by forged medical cards; and they often do not check whether a license has been suspended or revoked. One of the most valuable ways that MCSAP officers affect the human error component of accident causation is the visual observation of the driver during the inspection: the inspector can watch the driver, look into his eyes, and/or smell his breath. Many MCSAP officers have not received sufficient training or retraining in this area.

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[18] Abkowitz, Mark, et al. The Impacts of Human Factors on Heavy Truck Safety. Unpublished Report, Aug. 1989. Additional discussion is found in: Abkowitz, Mark et al. Analysis of Human Factors Effects on the Safety of Transporting Radioactive Waste Materials. Technical Report, Apr. 1989. Prepared for Battelle Nuclear Systems Group. BMI/OTSP-04.

[19] FHWA response to questions posed by Senator Lautenberg as part of a hearing before a subcommittee of the Senate Appropriations Committee, 1990.

[20] Office of Technology Assessments, Gearing Up for Safety: Motor Carrier Safety in a Competitive Environment, 1988. p. 137.

MCSAP officers seek to promote compliance with their State-adopted version of FMCSR and the Hazardous Materials Transportation Regulations (HMTR) or compatible State regulations. Even if compliance with these federally specified regulations were absolute, there would still be thousands, possibly hundreds of thousands, of major and minor accidents involving commercial motor vehicles each year in the United States. For the most part, these accidents are caused by human error as manifested by drivers failing to obey the rules of the road. MCSAP was not designed or intended to deal with many of the driver-error causes of accidents, such as "on highway" driver operating errors. Under current FHWA policy, MCSAP funds cannot be used for purposes of reimbursement for traffic enforcement activities or associated equipment. Consequently, when being paid by MCSAP, MCSAP inspectors spend virtually no time detecting whether a commercial operator has been speeding, following too closely, or disobeying the rules of the road.[21] As discussed later in this report, other Federal efforts aimed at promoting State and local commercial motor vehicle traffic safety are minimal in size and rather ineffective, especially when evaluated in relationship to the size of the problem. Thus, there is a gap in Federal efforts and policy to promote commercial motor vehicle safety and enforcement by State and local officers.

As shown below, only certain factors of accident causation are substantially influenced by MCSAP activities.

Accident Causation Factor	*Impact of MCSAP*
Vehicle factors	MCSAP is one of the most significant programs affecting commercial vehicle safety performance.

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[21] See footnotes 5 and 46 for an explanation of the exception to this statement.

The Federal Motor Carrier Safety Regulation 392.2 states, in part, that every motor vehicle must be operated in accordance with the laws, ordinances, and regulations of the jurisdiction in which it is being operated. MCSAP officers do not get reimbursed by FHWA for traffic enforcement activities. When officers charge their time to MCSAP, they usually spend their working time along the roadside inspecting trucks and rarely enforce on-highway operating regulations such as those considered in 392.2. However, some use violations of local laws to establish probable cause to stop a vehicle for further inspection.

Accident Causation Factor	*Impact of MCSAP*
Personnel factors	Check of log book and medical card is essential, but falsification of log book is too frequent by some. In some personnel-related causation factors, MCSAP plays an important role, in many of the key aspects, such as on-highway driver performance, it plays much less of a role. As discussed later in this report, widespread and frequent enforcement of the CDL, including a check of its status, as part of the MCSAP inspection protocol would be a major step towards improving the effectiveness of MCSAP in personnel aspects of accident causation. MCSAP funds are able to support only a minimal number of audits which examine some driver-related causation factors.
Operating environment factors	MCSAP activities do not affect this area.
Management controls	MCSAP inspectors conducted approximately 10,000 reviews of carrier operations during FY 1989. These reviews considered management controls of the affected carriers; but considerably more carriers could be reviewed if funds were available. Roughly 85 percent of MCSAP's funds, however, are spent conducting roadside inspections rather than conducting reviews at carrier facilities. Information generated as a result of MCSAP inspections is now used to help target carriers for auditing activities, including an examination of their safety management practices.

THE IMPORTANCE OF DRIVER ERROR

Both the technical literature and safety experts suggest that driver error is associated with an overwhelming majority of accidents. As stated by Abkowitz et al., ". . . it is clear that the driver is an integral part of this process and warrants special attention given the magnitude of the heavy truck accident involvements and the implication that human error is a serious concern." Furthermore, these investigators point out that when driver-related factors in commercial accidents have been specified on the National Accident Sampling System accident report form, the most frequently cited factors of accident causation include: driving too fast for conditions, illegal lane changes, and disobeying traffic signals.[22] Although the root cause of many of these human errors may be fatigue, it is difficult to define, measure, cite, and convict on violations of "fatigue" other than by citing hours-of-service violations. Officers cite much more frequently speeding and other traffic violations, which are more easily documentable in court. Many accident reports, however, indicate that fatigue is not a causal factor.

Numerous accident investigations, MCSAP reports, and other studies indicate that a major cause of accidents involving commercial vehicles are such driver errors as violations of traffic and other operating rules of the road. For example, a 1985 DOT study showed that speed and speed-related violations were a major factor in over 40 percent of the accidents studied that involved commercial motor vehicles. In addition, as stated in Louisiana's SEP for FY 1990, three of the most common causes of commercial motor vehicle accidents in Louisiana are: failure to yield, following too closely, and improper turning and other unknown violations.[23] Similarly, in its FY 1990 SEP, Arkansas states that the three most common causes in its borders of accidents involving commercial vehicles are: speed, failure to yield, and following too closely. The SEP of many other States present similar results. Ironically, almost all of the Federal funds spent on commercial vehicle safety do little to promote enforcement of statutes pertaining to these types of violations.

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[22] Abkowitz, Mark, et al., p. 1. The OTA report on motor carrier safety previously cited presents similar findings.

Various truck safety experts interviewed for this report also noted the important role of driver error in accident causation. For example, Captain David Rich of the Idaho State Police stated that in-depth investigations conducted by Idaho accident reconstruction experts, assisted by MCSAP officers, show that disregard for traffic laws (including inattentive driving) is the most common cause of accidents involving commercial motor vehicles. Idaho investigators using MCSAP funds have concluded that of the 208 commercial motor vehicle-involved accidents they examined, 10.58 percent were caused by vehicle or mechanical defects or failures, 14.90 percent of these were caused by the driver and equipment, 51.92 percent were caused by the commercial driver, and 22.60 percent were caused by the non-commercial driver.[24]

Table 3 shows contributing factors for the 1988 commercial vehicle accidents that occurred in Nevada, as presented in its FY 1990 SEP. This table is illustrative of similar findings in other States. These data typically show that vehicle defects were identified as a relatively low percentage causation factor.

TABLE 3. Commercial Vehicle Accidents Contributing Factors, State of Nevada

	#	% to total	Sub-total	% to Sub-total	% Sub-total to total
DRIVER:					
Under Influence/Alcohol	63	3.8%		4.6%	
Under Influence/Drugs	1	0.1%		0.1%	
Excessive Speed	29	1.7%		2.1%	
Speed Too Fast For Conditions	212	12.7%		15.6%	
Following Too Close	126	7.6%		9.2%	
Wrong Side of Roadway	19	1.1%		1.4%	
Inattentive Driving	149	8.9%		10.9%	
Opening Door Into Traffic	3	0.2%		0.2%	
Non-Designated Travel Lane	47	2.8%		3.4%	
Driving In Improper Manner	82	4.9%		6.0%	
Improper Passing	56	3.4%		4.1%	
Improper Lane Change	167	10.0%		12.3%	
Improper Turn	120	7.2%		8.8%	
Improper Start From Parking	7	0.4%		0.5%	
Improper Parking	3	0.2%		0.2%	
Improper Backing	61	3.7%		4.5%	

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[23] State of Louisiana. Department of Public Safety and Corrections. Motor Carrier Safety Assistance Program. FY 1989/FY 1990. p 10. The SEP is submitted as part of the MCSAP grant application process.

[24] Personal communication with Captain David Rich and Saundra DeKlotz, Idaho State Police, 1989 and 1990, and computer analysis of the data from the Idaho State Police MCSAP Truck Accident Reconstruction Data System. Prepared by Lt. Robert C. Lockett of the Idaho State Police, 1990.

TABLE 3. Commercial Vehicle Accidents Contributing Factors, State of Nevada—Continued

	#	% to total	Sub-total	% to Sub-total	% Sub-total to total
Failure To Yield	172	10.3%		12.6%	
Failure To Signal	2	0.1%		0.1%	
Failure/Yield To Emergency Veh	2	0.1%		0.1%	
Driver Physical Defect	3	0.2%		0.2%	
Fatigued Driver	31	1.9%		2.3%	
Driver Vision Obscured	1	0.1%		0.1%	
Hit And Run	7	0.4%		0.5%	
Driver Sub-Total			1363		81.9%
VEHICLE:					
Defective Vehicle	16	1.0%		11.9%	
Defective Steering	2	0.1%		1.5%	
Defective Brakes	22	1.3%		16.4%	
Defective Tires	17	1.0%		12.7%	
Defective Trailing Unit	47	2.8%		35.1%	
Vehicle Too High	8	0.5%		6.0%	
Unsafe Load	22	1.3%		16.4%	
Vehicle Sub-Total			134		8.0%
OTHER					
Objects In Roadway	13	0.8%		7.7%	
Pedestrian In Roadway	7	0.4%		4.2%	
Animal In Roadway	6	0.4%		3.6%	
Animal In Roadway (Cow)	39	2.3%		23.2%	
Animal In Roadway (Horse)	6	0.4%		3.6%	
Animal In Roadway (Deer)	18	1.1%		10.7%	
Loose Material On Surface	1	0.1%		0.6%	
Defective Roadway	2	0.1%		1.2%	
Prior Accident	3	0.2%		1.8%	
Non-Contact Vehicle	24	1.4%		14.3%	
Unoccupied Moving Vehicle	7	0.4%		4.2%	
Improper Pedacycle Action	1	0.1%		0.6%	
Bad Weather	18	1.1%		10.7%	
Other Factor	12	0.7%		7.1%	
Unknown Factor	11	0.7%		6.5%	
Other Sub-Total			168		10.1%
Total Contributing Factors			1665		100%

SOURCE: Nevada FY 1990 SEP

THE IMPORTANCE OF VEHICLE-RELATED PROBLEMS

Recently, Jack Faucett Associates, as part of a contract for FHWA reviewed the literature on the causes of commercial vehicle accidents.[25] Presented below is a summary abstracted from an annotated bibliography prepared by this contractor of some of the key studies reviewed.

1. A study published by FHWA found that approximately 5.1 percent of the preventable accidents reviewed had vehicle-related problems cited as an accident cause.
2. A study by researchers at the University of Michigan Transportation Research Institute found that investigators re-

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[25] Jack Faucett Associates. Evaluation of Vehicle Out-of-Service Criteria. Task A Report, Nov. 1989.

corded vehicle defects and problems as crash-related factors in 7.7 percent of the fatal accidents examined.

3. In a report published by NHTSA, results were reported from the State of Washington showing that in 8.9 percent of the combination truck accidents between 1981 and 1983, a vehicle-related failure/deficiency contributed to the cause of the accident.

4. In an examination using FHWA data of the linkages between motor carrier accidents and safety regulations of carriers with high accident rates, it was found that in 5.8 percent of the accidents involving these carriers, that vehicle defects were identified as an accident causation factor. The comparable figure among the carriers with low accident rates was 3.9 percent.

5. In another study published by NHTSA, it was found that in roughly 4.8 percent of the accidents studied mechanical defects were reported to have been contributing factors.

6. In a study published in the "Journal of the Transportation Research Forum," it was found that defective truck equipment is noted as a cause in approximately 13 percent of the large truck accidents.

Each of these studies may use different data bases, be based on different assumptions, and include different types of investigations, but all appear to reach similar conclusions. In general, vehicle defects play a relatively small role in accident causation. It is necessary to point out that there are substantial limitations in any study that bases its conclusions on a determination of accident causation, which is difficult to analyze. Nevertheless, the state of knowledge today repeatedly confirms the basic conclusion stated above.

This CRS report does not suggest that increased compliance with FMCSR is not important. The opposite is the actual case. Various studies have indicated that increased compliance with these regulations is associated with a decrease in the number of accidents involving commerçial motor vehicle accidents.[26] The key point is that while promoting increased compliance with the FMCSR regulations is essential, even larger improvements in accident rates would be possible if other enforcement strategies were also implemented. This would include spending some of MCSAP's funds to enforce those regulations whose violation results in most of the accidents involving commercial vehicles. Congress may wish to consider spending money on traffic enforcement activities targeted on the drivers of trucks and buses, if MCSAP is to become a more effective program, with its implications for the respective roles of Federal, State, and local governments.

In many accidents, the human error is compounded by vehicular mechanical problems. This interaction requires a systematic driver/vehicle inspection approach. In the current MCSAP, this systematic approach is heavily weighted on the vehicles.

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[26] Compliance with the Federal Hazardous Materials Transportation regulations, another objective of MCSAP, is also an essential component of promoting highway safety.

WHAT SHOULD BE THE FUTURE DIRECTION OF MCSAP?

In deciding the future direction for this program, it is important to ask two key questions: (1) Is FHWA implementing MCSAP in a manner that will accomplish the objectives specified in the Surface Transportation Assistance Act of 1982? and (2) Is MCSAP effectively addressing the major factors that are causing truck and bus accidents?

The answer to the first question is "yes." The benefits and accomplishments of the current MCSAP effort have been carefully documented in previous reports by the CRS, the Office of Technology Assessment, and the FHWA. Since the inception of the program in 1983, FHWA has dispersed more than $218 million making "grants to States for the development or implementation of programs for the enforcement of Federal rules, regulations, standards, and orders applicable to commercial motor vehicle safety and compatible State rules, regulations, standards, and orders." [27]

It should be noted that MCSAP is only a part of FHWA's program to promote motor carrier safety. FHWA has issued and enforces over 1,400 safety regulations, oversees the Commercial Drivers licensing program soon to be conducted by all of the States, and monitors a drug testing program conducted by motor carriers subject to FHWA regulations.

Even with its current narrow focus, MCSAP has contributed to reduced commercial motor vehicle accident rates in many States. This alone suggests that the core inspection program should continue.

The second question now needs to be raised: Is MCSAP effectively addressing the major factors that are causing truck and bus accidents? The answer to this question is "no." But, Congress did not intend and FHWA did not design MCSAP to accomplish this objective.

If it is to be a more comprehensive and strategically designed safety program, MCSAP needs to focus more on the major accident causal factors. This means increased attention to those on-highway driver errors that are primarily causing preventable accidents involving commercial motor vehicles. As discussed later in this report, the best way to accomplish this would be to encourage the enforcement community to conduct more traffic enforcement activities targeted to commercial motor vehicles. From a programmatic perspective, this would mean the time spent on traffic enforcement would need to be eligible for MCSAP reimbursement, but only when the on-highway activity is coupled with a MCSAP inspection. This would also mean increased attention being devoted to finding the impaired driver. More funds spent on drug- and alcohol-awareness training and enforcement, and perhaps less spent on vehicle inspections, may be appropriate. If more MCSAP funds could be used to address these driver-oriented problems, substantial reductions in the current commercial motor vehicle accident, injury, and fatality rates could result. However, unless Congress adds substantially more funds, e.g., $13 to $15 million yearly to the current MCSAP effort, monies devoted towards increased traffic enforcement of commercial operators would reduce the funds available for Level I MCSAP inspections.[28]

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[27] Public Law 97-424.

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[28] State officials supported with MCSAP funds conduct several major types of inspections of commercial motor vehicles:

Level I. North American Standard Inspection–According to FHWA, "an inspection that includes each of the items specified under the North American Uniform Driver/Vehicle Inspection criteria. As a minimum North American standard inspections must include examination of: driver's license, medical examiner's certificate and waiver if applicable, driver's record of duty status as required, hours of service, seat belt, vehicle inspection report, brake system, steering mechanism, wheels, tires, coupling devices, suspension, frame, fuel system, exhaust system, windshield wipers, lighting devices, cargo securement, and hazardous materials requirements as applicable." (This is the premier type of inspection that is intended to focus on selected driver, vehicle, cargo placement, and hazardous material deficiencies that frequently cause an accident, or contribute to its severity. The major objective of the Level I inspection is to remove potentially unsafe drivers and imminently hazardous vehicles from the Nation's highways. A typical Level I inspection takes 20 to 35 minutes.)

Level II. Walk-Around Driver/Vehicle Inspection—"An examination that, as a minimum, includes: driver's license, medical examiner's certificate, and waiver if applicable, driver's record of duty status as required, hours of service, seat belt, vehicle inspection report, fire extinguisher, warning devices for stopped vehicles, head lamps, turn signals, stop lamps, windshield and wipers, wheels, tires, fuel systems, exhaust systems, visible brake components, coupling devices, cargo securement, low air warning device, visible suspension components, and hazardous materials requirements as applicable. It is contemplated that the walk-around driver/vehicle inspection will be conducted without inspecting underneath the vehicle."

Level III. Driver Only Inspection—"An on-highway examination of the driver's operator license, medical certification and waiver if applicable, driver's record of duty status as required hours of service, seat belt, and vehicle inspection report."

This footnote is extracted from the 1988 CRS report on MCSAP previously cited. The various types of inspections were developed jointly by CVSA and FHWA.

CURRENT AND FUTURE FUNDING FOR MCSAP

This chapter discusses the funding challenges facing the MCSAP community. First, the problems that the current authorization limit poses for MCSAP are examined. Second, a list of activities that MCSAP officers could pursue to further promote safety if additional funds were available is presented. Finally, four different funding options are presented for the FY 1992 through FY 1994 MCSAP activity.

DOES THE CURRENT FUNDING LIMIT FOR MCSAP ADVERSELY AFFECT THE PROGRAM?

Although the amount of Federal funding has increased steadily since its inception, the MCSAP has not received substantial increases in funding since FY 1989. The funding history of MCSAP is shown in figure 1. Consequently, FHWA, as the administrator of MCSAP funds, has experienced much difficulty in responding to increased equipment and salary costs resulting from inflationary pressures, the effects on MCSAP of the growth in and partial deregulation of the motor carrier industry, and improvements or expansions of State enforcement activities. Especially during the last two to three years, the MCSAP States have done more with fewer dollars adjusted for the effects of inflation.

One of the key concerns of State program managers is the total sum of funds obligated to support MCSAP activities. As State MCSAP efforts have matured and expanded, and as the number of MCSAP States has grown, the basic formula allotment no longer meets the basic salary and equipment needs of perhaps one half of the State enforcement programs.[29]

Consequently, some States rely heavily on discretionary MCSAP funds—monies left over after each State receives its primary allocation plus funds that were not previously spent—to pay the basic salaries of some of their inspectors. These discretionary funds are available only on a year to year basis, and program managers do not know whether these funds will be available during subsequent years.

For example, during FY 1990, Idaho is funding more than one-half of the basic salaries of its 12 MCSAP inspectors and supervisors using discretionary funds. Connecticut also is depending on discretionary funds to support its basic core of MCSAP inspectors. In Connecticut, discretionary funds are used to support six MCSAP inspectors who conduct Level I inspections, but who cannot be funded within the limits of the basic formula grant.[30] Thus, both Connecticut and Idaho MCSAP officials argued that discretionary

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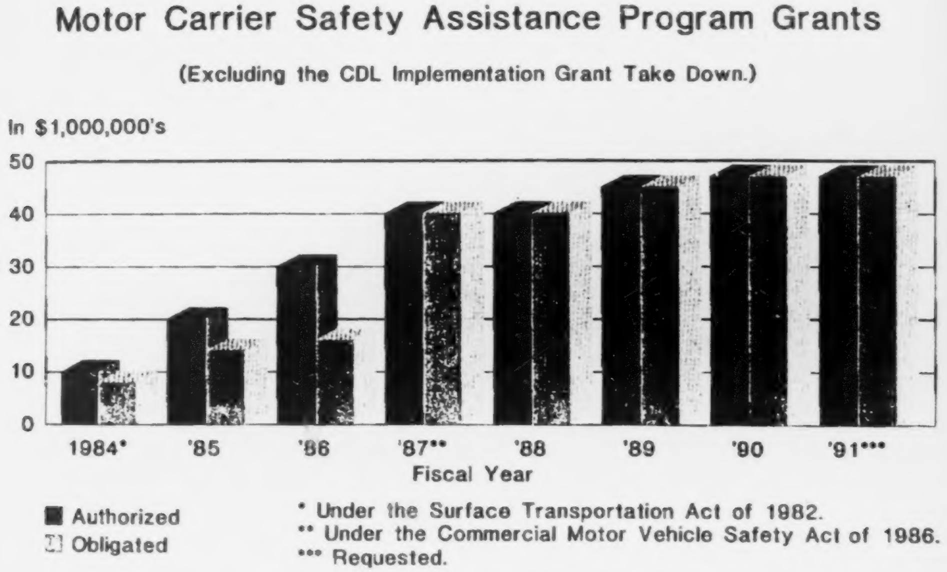
[29] Based on discussion with FHWA staff, 1990.

[30] State of Connecticut, State Enforcement Plan, 1990.

FIGURE 1. MCSAP PROGRAM FUNDING



SOURCE: National Association of Governor Highway Safety Representatives and other members of safety coalition, 1990.

funds are essential to maintain a strong motor carrier safety program. State officials from these and other States are concerned about the future availability of these funds.

In recent years, Kentucky has received more MCSAP discretionary funds than it gets from its primary MCSAP grant. According to Major Stephen Anders, a manager of Kentucky's MCSAP program, these discretionary funds have been used to pay for a huge increase in the number of inspections and a reduction in the number of accidents. Major Anders maintained the current output of this program is dependent upon receiving discretionary grants.[31]

Other examples of MCSAP enforcement units using discretionary funds for basic salaries include: Massachusetts Registry of Motor Vehicles, Colorado Port Authority, Utah Highway Patrol, Tennessee Public Service Commission, Louisiana State Police, and Rhode Island Department of Transportation.[32]

The uncertainty associated with the availability of discretionary funds makes future planning difficult for State program managers. The amount of discretionary funds available for distribution has been declining in recent years. If discretionary funds were unavailable, either State officials would have to fund these inspectors using State funds, reduce or eliminate other activities or positions supported by the MCSAP grant, or lay off inspectors or transfer them to other programs that have available funds. The "fear of losing their jobs" is always on the mind of some State inspectors.[33] The uncertainties of MCSAP funding also makes recruitment to fill vacancies difficult.

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[31] Personal communication with Major Anders, 1990.
[32] Personal communication with FHWA staff, 1990.

As is the case with many other Federal programs, MCSAP has reached the point where the total amount of funding can no longer support what the participating States seek to accomplish. Although some States may return funds in any given year because the timing of State expenditures did not coincide with FHWA budgetary requirements, MCSAP is severely constrained because of funding limitations.

As the State MCSAP programs mature, increase the number of inspections performed, and expand the scope of their activities, States are asking for more and more funds, and they are using more of what they take from the MCSAP pie.[34] Currently, South Dakota and Florida do not participate in MCSAP. If all States were participating in MCSAP, the competition for these funds would be much more intense.

During FY 1990, funds available for distribution under MCSAP were $46.7 million, of which $43.6 million were awarded according to the basic allocation formula and over $7.2 million were awarded for discretionary distribution.[35] The sum actually awarded is greater than the amount authorized because of monies passed back from previous years.

MCSAP is not an inexpensive safety activity. With roughly 3,500 part-time and 900 full-time officers participating in the program, the combined Federal and State costs of MCSAP have become substantial and are increasing every year. MCSAP is supporting officers that earn on average roughly $25,000 to $45,000 per year plus roughly 30 percent for fringe benefits. These officers have gone through extensive training and continually require retraining.

IF ADDITIONAL FUNDS WERE AVAILABLE, MCSAP OFFICERS COULD DO MUCH MORE TO PROMOTE SAFETY

If Congress were to increase funding for MCSAP, there would be many opportunities to increase the effectiveness or efficiency of this useful safety program. Although some of these opportunities overlap, they include:

1. Ensuring a more definitive and permanent role for MCSAP in the Nation's drug- and alcohol-enforcement activities. Funds could be allocated to further train MCSAP officers in drug interdiction activities that are appropriate to their legal authorities and job responsibility. Funds could also be provided to train more MCSAP officers to better recognize the impaired driver, i.e., training on the symptoms of drunk and drugged commercial drivers. Congress also might consider providing funds for additional innovative projects, including the use of dogs trained to detect drugs in the cab or trailer as part of a probable cause search; [36]

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[33] Based on in depth discussions with various FHWA and State officials, 1989.

[34] Ibid.

[35] Ibid.

[36] Funds also could be provided to pay for some random drug testing of drivers at the roadside, provided that all of the legal and technical problems associated with such testing are adequately addressed.

2. Providing training for additional highway safety officers so that they would be more competent and motivated to conduct either driver-only inspections (known as Level III inspections) or Level II inspections which are cursory, "walk-around" commercial motor vehicle inspections coupled with a Level III inspection;
3. Improving data analysis and accident investigations and submitting increased and improved inspection, accident, and audit data to a national data base on interstate motor carriers;
4. Increasing the role of the MCSAP community in the enforcement of traffic safety regulations affecting the commercial motor vehicle industry;
5. Increasing the role of the States in conducting safety and compliance reviews on behalf of the FHWA;
6. Promoting use of new technologies to increase the effectiveness and efficiency of MCSAP, e.g., by focusing inspections on those companies with identified compliance problems and by advancing the reliability and legal acceptance of driver fatigue identification systems;
7. Allowing MCSAP funds to be used for targeted weight enforcement activities which would offer some safety benefits and help preserve the highway infrastructure;
8. Improving the integrity of the inspection process by selectively verifying that more vehicles taken out-of-service for major safety defects are indeed being repaired so that more of these vehicles return to our Nation's highways without these defects;
9. Allowing MCSAP to become a comprehensive and targeted truck and bus safety program that would maximize use of integrated inspection, audit, and accident data;
10. Increasing activities designed to further educate the public on how to share the highway with the motor carrier industry; to work with the motor carrier industry to improve compliance with the safety regulations; and to educate various State and local judicial and legislative officials on truck and bus safety issues, especially on the need for vigorous enforcement activities and meaningful but reasonable penalty assessments;
11. Encouraging States to amend, when appropriate, their intrastate motor carrier safety regulations to be compatible with the Federal Motor Carrier Safety Regulations;
12. Allowing the States to maintain MCSAP's basic core inspection effort at most of its current level. This would give State inspectors increased certainty about their job security; and
13. Promoting increased enforcement by MCSAP officers of the Commercial Drivers License by purchasing the equipment necessary to accomplish this objective.

Each of these various alternative ways to strengthen MCSAP are discussed in detail later in this report.

MCSAP IS READY TO EVOLVE INTO A MORE COMPREHENSIVE AND STRATEGICALLY DESIGNED PROGRAM

MCSAP has reached a sufficient level of maturity that would allow it to increase its contributions to safety. MCSAP started off as a roadside inspection effort. Increasing numbers of inspectors are now also conducting carrier reviews and drug interdiction activities. If Congress provides the required funds, MCSAP officers could expand their efforts and perform more comprehensive, useful, and targeted inspections. As explained later in this report, this is especially true in the areas of hazardous materials transportation, traffic enforcement, and increased alcohol and drug enforcement. As long as proper training is provided and accepted procedures are followed, increased use of the broader law enforcement community in commercial traffic enforcement and inspection would help achieve the goals of MCSAP. The ability and eagerness of State and many local enforcement officers to conduct substantially improved commercial vehicle safety programs should not be underestimated. Additional funding and responsibilities could leave an impact on the current respective roles of Federal, State, and local authorities.

ILLUSTRATIVE FUNDING LEVELS FOR THE FY1992 THROUGH FY1994 MCSAP

The legislation reauthorizing MCSAP is likely to specify its funding levels for at least the next three years. Table 4 presents four different funding options—Option No. 1 which is the "small increase" option that would fund minimal growth of the current effort but no traffic enforcement activities; Option No. 2 which is the "minor improvement"; Option No. 3 which is a modest growth option; and Option No. 4 which is an "expansive" effort. Table 4 includes estimates that do not provide for any funds for weight-enforcement efforts. Table 5 presents these same options but includes estimates that allow weight enforcement to be an eligible MCSAP expense. Tables 4 and 5 present illustrative ways in which MCSAP funds could be spent; these estimates do not suggest that Congress should specify the exact categories and amounts of MCSAP funds. The amounts shown may be useful, however, because they indicate the size of effort that might reasonably be allocated for each area.

MCSAP FUNDS DISTRIBUTION FORMULA

As part of the debate over MCSAP's reauthorization, Congress might consider developing an improved formula for the distribution of MCSAP funds. The organic legislation establishing MCSAP did not specify a distribution formula; consequently, FHWA developed, by rulemaking, a formula for the basic grant program. Several MCSAP managers have expressed their desire to have the formula improved or updated.

Congress could require FHWA to conduct a new formal rulemaking designed to determine whether changes are needed in the current formula used to determine the distribution of MCSAP funds. In addition to those factors now considered, FHWA could be directed to consider the feasibility of including such factors as the depth and dimensions of a State's motor carrier safety efforts, the extent of and progress towards addressing a State's motor carrier safety problems (i.e., measuring the effectiveness and impact on highway safety), the productivity and efficiency of a State's efforts, the degree of compatibility of a State's motor carrier safety regulations with the Federal regulations, and ways to reward innovative and successful programs. FHWA has stated that it believes that the current formula process is working well. FHWA, however, may reexamine the formula as part of the reauthorization process.[37] Measuring some of these criteria may prove difficult.

TABLE 4. Growth of MCSAP Without Weight Enforcement, Starting Point for FY 1992 [1]

Activities	Small increase	Minor improvements	Modest growth	Expansive program
Basic core program now funded but with increased emphasis on local government enforcement [2]	$47	$47	$47	$47
Drug awareness and interdiction	1	1	1.5	2
Increased CDL enforcement	1	1	1.5	1.5
Traffic enforcement coupled with inspections	—	5	7	10
Cost of living adjustments and promotions	3	3	4	4
Expansion and improvements of the program, including additional safety and compliance reviews, safety data inputs, hazmat training and public education activities, verification of out-of-service repairs, and alcohol and drug enforcement	3	3	4	5.5
TOTAL	$55	$60	$65	$70

[1] These allocation figures are based partly on comparisons to levels of funding being spent now and discussions with various program managers. All dollar amounts are in millions.

[2] The core program is funded at $47 million. In the FY 1991, Congress added $1.5 million for a total MCSAP funding level of $48.5 million.

TABLE 5. Growth of MCSAP With Weight Enforcement, Starting Point for FY 1992 [1]

Activities	Small increase	Minor improvements	Modest growth	Expansive program
Basic core program now funded but with increased emphasis on local government enforcement	$47	$47	$47	$47
Drug awareness, and interdiction	1	1	1.5	2
Increased CDL enforcement	1	1	1.5	1.5
Traffic enforcement coupled with inspections	—	5	7	10
Cost of living adjustments and promotions	3	3	4	4
Expansion and improvements of the program, including additional safety and compliance reviews and safety data input, hazmat training and public education activities, verification of out-of-service activities, and increased alcohol and drug enforcement	3	3	4	5.5
Targeted Weight Enforcement	**15**	**15**	**20**	**30**
TOTAL	$70	$75	$85	$100

[1] These allocation figures are based partly on comparisons to levels of funding being spent now and discussions with various program managers. All dollar amounts are in millions.

THE AMOUNT OF FUNDING FOR THE FUTURE OF MCSAP

Different interest groups and organizations have suggested different funding amounts for future MCSAP efforts. Several of these key positions are presented below. ATA supports an increase in MCSAP funding at the $100 million per year level.[38] ATA maintains this amount of funding is necessary to assure that a sufficient number of inspections of vehicles with a gross vehicle weight rating of less than 26,000 pounds but more than 10,000 pounds occur.

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[37] Written response to questions posed by Senator Lautenberg as part of hearing before a subcommittee of the Senate Appropriations Committee, 1990.

[38] Discussion with ATA, 1990.

In 1990, the Commercial Motor Vehicle Safety Regulatory Review Panel, which was composed of senior leaders of industry, labor, and government and authorized by the Motor Carrier Safety Act of 1984, discussed that $100 million might be an appropriate level for MCSAP funding annually. The Review Panel noted that this sum would substantially change the scope and direction of MCSAP. This amount certainly would allow the Federal Government to exert a much greater leverage on obtaining uniformity among State and Federal motor carrier safety regulations. The Panel wanted the States to expand the scope of their activities to include all facets of motor carrier safety.[39] The Panel's final report does not recommend a specific sum for a reauthorized MCSAP, but rather, the Panel stated that MCSAP should be reauthorized at a higher level of funding.

In its 1988 report "Gearing Up for Safety," the Office of Technology Assessment stated that continued Federal financial support for MCSAP is crucial. OTA suggested that Congress may wish to increase funding for MCSAP because additional trained personnel are needed across the country.[40]

Todd Spenser of the Independent Owner-Operators Association favored reauthorization of MCSAP at its current funding level. He argued that there have been many new regulatory changes in recent years and that the impacts on safety of these changes have not yet been fully realized.[41]

A coalition of groups, including the National Association of Governors' Highway Safety Representatives, the American Automobile Association, The Highway Users Federation, and the National Safety Council have expressed support for MCSAP at the $80 million per year level to support a broadened scope of commercial motor vehicle safety activities, including traffic enforcement.[42]

COMPETING USES OF HIGHWAY TRUST FUND MONIES

MCSAP is funded directly out of the Highway Trust Fund which supplies monies for many pressing needs. One need is to improve our Nation's highway infrastructure, portions of which are literally crumbling. Monies from this trust fund also are used to support important safety initiatives and highway safety grant programs conducted by the States. Monies from the Highway Trust Fund also pay for key research and development projects on highway safety, intelligent vehicle highway systems, and work on highway design and materials problems. Thus, MCSAP is only one of many programs that compete for monies from the Highway Trust Fund. But, relative to the $14 billion or so that is collected annually into the Highway Trust Fund, the $48.5 million or so that is currently allocated to MCSAP is quite small. The question is whether the MCSAP portion should be increased.

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[39] Commercial Motor Vehicle Safety Regulatory Review Panel. Achieving Compatibility of State and Federal Safety Requirements. Aug. 1990.

[40] Office of Technology Assessment. Gearing Up for Safety. Summary. Sept. 1988. p. 18.

[41] Personal communication with Todd Spenser, 1990.

[42] Letter from coalition, 1990.

The remaining portions of this report deal with the future of MCSAP. The next chapter considers the option of allowing MCSAP funds to be used to pay for increased traffic enforcement that is coupled with an appropriate type of MCSAP inspection.

Future Directions for MCSAP: Traffic Enforcement Coupled to a MCSAP Inspection

This chapter addresses the most significant and probably the most important change to MCSAP that Congress might consider when it reauthorizes this program. This change would allow MCSAP funds to be used to increase the level and extent of traffic enforcement activities conducted on bus and truck drivers that violate the rules of the road. These enforcement actions would be coupled with MCSAP inspections that are appropriate to the roadside situation and the training of the officers. This can be accomplished in two different ways: (1) by using MCSAP funds to train police traffic personnel other than MCSAP officers to conduct primarily driver-only inspections in conjunction with traffic stops, (2) by paying portions of the salaries of trained officers to conduct more traffic enforcement activities that are coupled with MCSAP inspections. This report concludes that both approaches could substantially improve the effectiveness of MCSAP.[43]

First, this chapter discusses an essential element of highway safety—the enforcement of traffic laws—an activity that MCSAP is currently not funding. Second, the chapter discusses what NHTSA is doing to promote the compliance of the traffic safety laws by commercial vehicle operators. The current limitations of both NHTSA's 402 program and various State efforts to promote traffic enforcement targeted to drivers of commercial motor vehicles is analyzed. Then, third, this chapter discusses the benefits and reasons for increased MCSAP involvement in traffic enforcement and the experience of various States in coupling traffic enforcement and MCSAP inspections. Finally, fourth, this chapter analyzes the arguments against increasing MCSAP involvement in traffic enforcement.

WHAT MCSAP IS NOT DOING TO PROMOTE COMMERCIAL VEHICLE SAFETY: THE PURPOSES OF MCSAP REEXAMINED

As specified in the "Code of Federal Regulations," the purpose of MCSAP is to reduce the number and severity of accidents and hazardous materials incidents involving commercial motor vehicles. The current MCSAP seeks to accomplish this goal " . . . by increasing the level of inspection, compliance and enforcement activity in order that safety defects, driver deficiencies and *unsafe driver practices* (italics added) will be identified." [44]

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[43] It is rather uncertain that either of these strategies would reduce the total number of inspections conducted. It takes considerably less time to conduct a Level II or III inspection, which would be conducted in conjunction with a traffic stop, than to conduct a Level I inspection; however, time would be required to find probable cause to stop a vehicle for a traffic violation.

[44] Federal Highway Administration. Interim and Future Plans for the Motor Carrier Safety Assistance Program. June 1989. p. 7

Based on an extensive review of most of the States' recent SEPs, it is readily apparent that MCSAP is not designed nor is it implemented in a manner that would achieve all of these objectives effectively. As explained below, an expanded MCSAP supported with additional funds could employ a variety of strategies to accomplish its stated goal more effectively.

As a result of dramatically increasing the number of roadside contacts, MCSAP has increased the level of motor carrier inspection, compliance, and enforcement activity targeted at commercial motor vehicles. This has resulted in a major increase in the identification of vehicle safety defects but only certain limited types of driver violations. Thus, MCSAP has been generally successful in promoting compliance with the Federal Motor Carrier Safety Regulations (or compatible State regulations) and the Federal Hazardous Materials Transportation Regulations.

But, MCSAP does little to identify unsafe on-highway driver practices. MCSAP is not specifically designed to promote compliance with State and local traffic statutes affecting the commercial motor carrier industry. Under current FHWA policy, traffic enforcement is not an eligible expense for reimbursement under MCSAP.[45,46] Consequently, MCSAP lacks a comprehensive and systematic process for identifying and responding to unsafe driver practices. This is ironic because, as discussed in the first chapter of this report, driver error, which is demonstrated partly by failure to obey traffic laws, is the major cause of accidents involving commercial motor vehicles. Figure 2 illustrates an example of the painful tragedies that occur on our Nation's highways every day.

Roughly 85 percent of MCSAP's funds are used to support roadside inspections.[47] At such sites, MCSAP officers check driver log books, licenses, and medical cards. They may look at drivers for signs of alcohol and drug use, which can affect driver operating practices. (Considerable training is required to do this effectively. Many MCSAP officers do not have this training or expertise.) These are among the primary ways that MCSAP officers affect driver operating errors. Although enforcement strategies are important, MCSAP would contribute more to highway safety and the identification of problem drivers if more MCSAP inspections were coupled with increased enforcement of traffic regulations. MCSAP officers do not get paid by MCSAP to catch the commercial driver who speeds, follows too closely, or fails to yield the right-of-way.

Because FHWA has been so concerned with increasing the number of vehicle/driver inspections and safety reviews, there are so few funds available for other important safety concerns.

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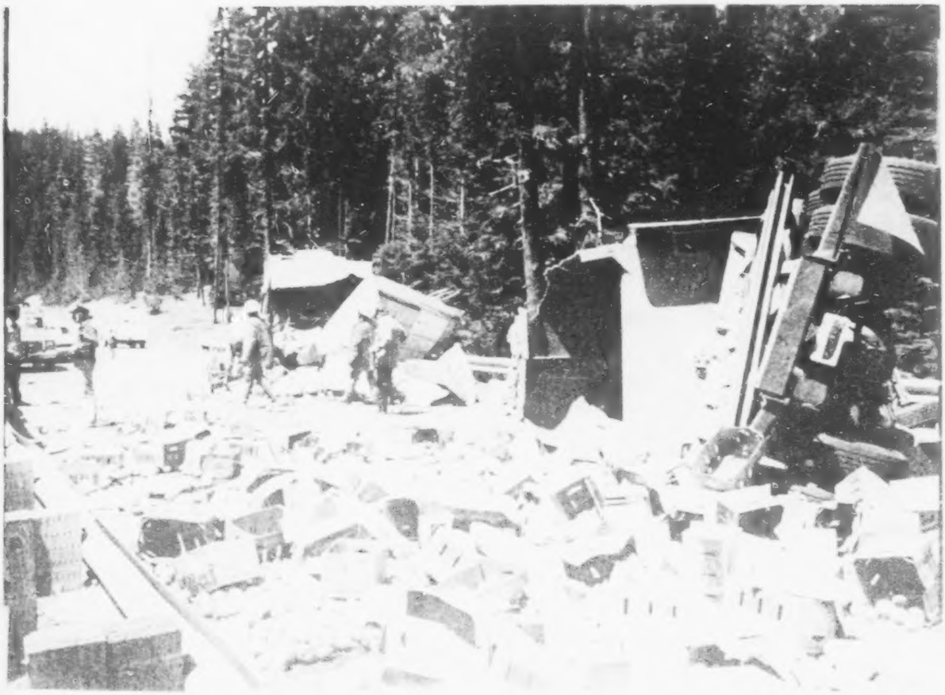
[45] MCSAP will reimburse a State for the time an enforcement officer spends doing a truck inspection. MCSAP will also pay to train non-traditional MCSAP highway officers to conduct commercial motor vehicle inspections.

[46] In the FY 1991 DOT and Related Agencies Appropriations Act, Congress established a $300,000 demonstration project under MCSAP that allows officers to be paid for traffic enforcement activities that are coupled with a MCSAP inspection. This small project is the exception to this statement regarding eligibility for MCSAP reimbursement.

Figure 2. Tragedy on the Highway.



The following description of a truck crash [illegible] 1989 was prepared by an officer of the Oregon State Police:

"The truck tractor combination was travelling southbound and entered a downhill curve too fast. The combination tipped over, striking a southbound motor home. The operator of the motor home [illegible] were killed. The operator of the truck received minor injuries.

Witnesses state the truck had been travelling at an excessive speed for a number of miles prior to the accident. The speed of the truck was estimated at 70 MPH by witnesses that were passed by the truck driver. Another truck driver had a CB radio conversation with the driver involved in the accident prior to the crash. The at fault truck driver was bragging how he had travelled 6,700 miles that week, and cheats on his log book.

Other truck drivers travelling on Highway 58 were very helpful in contacting the investigating officers to relate the actions of the at fault driver that they had observed prior to the accident.

A state police accident reconstructionist estimated the speed of the truck at 65 MPH to 68 MPH from physical evidence at the accident scene.

The truck driver was charged by a grand jury indictment with First Degree Manslaughter, and Second Degree Assault. By the time the indictment was returned, the truck driver had left the state. A warrant was issued, and the suspect was arrested in another state. We have information that the suspect intends to plead guilty to the Manslaughter charge."

WHAT IS NHTSA DOING TO PROMOTE TRAFFIC ENFORCEMENT FOCUSED ON COMMERCIAL MOTOR VEHICLE OPERATORS?

NHTSA, which is the Federal agency seeking to promote the enforcement of traffic regulations, uses several strategies to promote highway safety, including commercial motor vehicle safety. One of the primary means is through the traffic safety component of its 402 Highway Safety Grant Program. Based on a computer review of all program activities funded with NHTSA's FY 1989 402 funds as well as discussions with NHTSA staff and the Executive Director of the National Association of Governors' Highway Safety Representatives, it appears that few of the States used funds for speed enforcement focused on commercial motor vehicles. Six of the States participating in the 402 program indicated that their traffic enforcement activities included "substantial" involvement in truck-speed enforcement. However, the category "substantial" involvement is not specifically defined but generally means it is the most predominant feature of the project. Collectively, these six projects involved a total of roughly $1 million out of some $114 million of 402 funds.[48] Similarly, few States applied to use their FY 1990 402 funds for speed enforcement projects targeted to commercial vehicles.[49]

Many reasons explain why NHTSA's 402 program cannot and should not be depended on to support increased traffic enforcement activities targeted to commercial motor operators. Most importantly, the unearmarked portion of the 402 funds generally are intended as monies to start a program, and these funds generally are not used for permanent salary expenses as is the MCSAP program. The 402 funds are already stretched thinly; funding for this program has not been increased substantially for several years; there are many competing uses for these funds other than for traffic enforcement targeted on commercial vehicles, and earmarking of funds for traffic enforcement targeted on truck and bus operators would reduce the overall flexibility of NHTSA's 402 program. In some States, there is a reluctance to use 402 funds for projects targeted on trucks and buses because it is often thought that the MCSAP funds are available for safety efforts focused on these vehicles. Some State highway safety officials want to let the MCSAP officers conduct traffic enforcement on commercial vehicles and these highway officials want to use the 402 funds for other priorities. (Other NHTSA activities are mentioned later in this chapter.)

IS THERE SUFFICIENT TRAFFIC ENFORCEMENT TARGETED TO COMMERCIAL VEHICLES?

From a national perspective, the effectiveness of traffic enforcement affecting commercial operators is best described as uneven.[50] In some jurisdictions, police focus much attention on commercial operators; in others, there is relatively little enforcement affecting these drivers. In some States, the typical road officer lets the MCSAP officers conduct truck and bus enforcement activities and basically does not like to get involved with these vehicles. Many reasons may explain this practice—truck drivers, as a collective group, are the "friends" of many road officers; typical road officers do not have the training to deal with the Commercial Drivers License, hazardous materials shipping papers, log books, medical cards and other regulatory items unique to trucking operations; or there is extra paper work to fill out in giving a truck or bus driver a ticket in some States.[51] Some officers like to do "commercial work"; many others do not like dealing with commercial motor vehicles. Because of the various technologies such as radar detectors and citizen band radios that some commercial drivers use to avoid contact with the enforcement community, specialized training and enforcement strategies are especially useful. Many enforcement officers interviewed for this study emphasized that it is a lot easier to write a traffic ticket against a driver of a passenger car than against a driver of a commercial vehicle.

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[48] A low level of effort under the 402 program may be devoted by other States to promoting enforcement of traffic regulations by commercial operators.

[49] Personal communication with NHTSA employees, 1990. As part of its 403 grant effort, which is primarily a research and demonstration effort, NHTSA may fund a few small pilot projects to promote traffic enforcement aimed at commercial motor vehicle operators. If funded, these projects could receive a total of roughly $400,000 of Federal funds over the next few years.

[50] Based primarily on numerous discussions with highway safety officers, 1990.

The key point is that in some States, there are relatively good programs that focus on traffic enforcement targeted to commercial motor operators; in many States, there are substantial opportunities to strengthen these activities.

THE ADVANTAGES OF INCREASED MCSAP INVOLVEMENT IN TRAFFIC ENFORCEMENT [52]

Provided that additional funds for MCSAP are made available and are effectively monitored and efficiently administered, almost all of the State enforcement officers and program managers interviewed favored MCSAP funding of traffic enforcement activities, but only when coupled with an inspection. Senior MCSAP officials from such States as Massachusetts, Missouri, Nevada, Oklahoma, Nebraska, Pennsylvania, Oregon, North Dakota, and Idaho generally maintained that increased emphasis on traffic enforcement as part of the MCSAP approach was warranted.

There appears to be increasing interest in the expansion of MCSAP into traffic enforcement. For example, the Commercial Vehicle Enforcement Subcommittee of the American Association of Motor Vehicle Administrators (AAMVA) recently passed a resolution supporting additional monies to be allocated to MCSAP to be used for commercial vehicle speed enforcement.[53] Likewise, the National Association of Governors' Highway Safety Representatives testified that traffic enforcement should be an eligible expense under MCSAP.[54]

Senior FHWA officials, however, objected to using MCSAP funds to pay for traffic enforcement activities but favored the use of MCSAP funds to train the broader law enforcement community to conduct driver-only inspections after commercial vehicles were already stopped. FHWA has stated that a change in MCSAP's role in traffic safety enforcement is unwarranted. But, FHWA also stated that, under an expanded MCSAP it would consider establishing demonstration projects to promote speed and traffic enforcement of commercial motor vehicles. FHWA did not specify how such projects could be funded.[55]

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[51] NHTSA/FHWA workshop on commercial motor vehicle enforcement held on Oct. 24, 1989. Statements by various officers from Massachusetts and New Jersey.

[52] The limitations and possible disadvantages are discussed later in this chapter.

[53] Commercial Vehicle Enforcement Subcommittee of AAMVA 1990 Resolution entitled "Commercial Vehicle Speed Enforcement."

[54] Testimony before the Subcommittee on Transportation and Related Agencies of the House Appropriations Committee, 1990.

Paul Henry, president of the CVSA during 1989–90 and Deputy Administrator for Transportation Safety of the Oregon Public Utility Commission, strongly advocated the use of MCSAP funds for speed enforcement as well as for the enforcement of other traffic safety regulations. He argued that MCSAP has achieved probably most of the reduction in accident rates that is possible with its current level and type of vehicle/driver inspections effort. Mr. Henry stated that it would be timely to demonstrate an increased level of success in reducing commercial motor vehicle accidents rates by focusing on other major causes of accidents such as speeding in addition to continuing support for the basic roadside inspection and audit work of MCSAP. He asserted that if MCSAP is to reduce the number of commercial motor vehicle accidents, it must address a major cause of commercial motor vehicle accidents, which is speeding.[56] (Year after year, studies conducted by the State of Oregon show that speeding is one of the major causes of commercial motor vehicle accidents.)

At a symposium on "Effective Highway Accident Countermeasures," sponsored by FHWA, Paul Henry stated:

> Truck speed has been identified as a major cause or contributing factor in commercial vehicle accidents for years. Complaints to law enforcement and regulatory agencies from the public frequently reveal the commercial driver to be speeding and tailgating. If meaningful accident reduction strides are to be made under the MCSAP program, reasonable speed abatement practices should be incorporated into each State's MCSAP enforcement plan.[57]

There could be many benefits to increasing the current level of traffic enforcement affecting commercial motor vehicle operators. Random unannounced stops associated with traffic enforcement do not provide the driver with the same advance notice that the typical MCSAP inspection does. Stopping a truck in a safe location along the highway for a traffic ticket allows a trained inspector to observe the driver in his working environment without much opportunity for the driver to bring his log book up to date, falsify it, or destroy evidence of drugs. Such actions can occur when the driver knows from experience or from the discussions on the citizens band radio where MCSAP inspectors are working at fixed or temporary roadside sites. Because of such communications, drivers generally know where these sites are located; consequently, they often can prepare their log books to pass inspection before they reach the MCSAP officers.

It is not surprising that various studies conducted by the Oregon Public Utility Commission indicate that the driver out-of-service rate is higher for unanticipated inspections, when there is less time for drivers to falsify log books. Similar inspection data from West

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[55] Written FHWA responses to questions raised by Senator Lautenberg as part of hearing before a Subcommittee of the Senate Appropriations Committee, 1990.

[56] Personal communication with Paul Henry, 1989 and 1990.

[57] Written remarks of Paul Henry before a symposium entitled "Effective Highway Accident Countermeasures," June 12, 1990.

Virginia inspections have shown that increasing the number of unannounced roadside inspections results in a driver out-of-service rate more than 300 percent higher than when the inspections are conducted at a fixed or temporary MCSAP site such as at a rest area. Increased traffic enforcement also will enhance drug enforcement, because the highway officer during an unanticipated stop has a better chance of spotting or smelling controlled substances still in the cab.

Many drivers of trucks in poor condition try to avoid MCSAP inspection sites. By having more mobile road officers conducting traffic enforcement activities, MCSAP inspectors could have more contact with this type of driver.[58]

Repeatedly, enforcement officers and MCSAP managers argue that the same driver who is speeding, operating a vehicle recklessly, or otherwise disobeying the rules of the road is also likely to be the same operator who is driving a vehicle that needs to be checked. This is simply an intuitive feeling shared by many knowledgeable in this field and is not supported by quantitative data.

ATA believes that traffic enforcement can play a role in accident reduction and traffic enforcement and MCSAP activities can go hand-in-hand. ATA wants to ensure that stops for traffic enforcement are performed safely, and if associated inspections are performed they are performed by officers that are trained to perform all levels of CVSA inspections. ATA maintains that allowing traffic enforcement to be an eligible MCSAP expense would help to get commercial drivers and vehicles that are not safe off of the highway and would be consistent with the objectives and disqualification provisions of the Commercial Motor Vehicle Safety Act of 1986. According to ATA, the officer must be able to detect defective equipment as well as a possible deficiency in the driver's paperwork—to do otherwise, could allow an unsafe vehicle to proceed after it has been stopped.[59]

THE IMPORTANCE AND LIMITATIONS OF EXPANDING THE ROLE OF THE BROADER LAW ENFORCEMENT COMMUNITY IN TRUCK AND BUS SAFETY

The importance of expanding the role of the general law enforcement community in commercial motor vehicle safety is increasingly being recognized. For example, Federal, State, and industry participants at a recent Symposium on Effective Highway Accident Countermeasures recommended that more training on commercial motor vehicle safety for non-MCSAP officers should be provided. There is a widespread recognition that the existing MCSAP inspection force cannot do it all. Highly trained inspectors conducting the indepth Level I inspection procedure have more than enough to do at fixed or temporary roadside inspection sites. If MCSAP is to be more effective, it would be useful to train more traditional (or non-MCSAP) traffic officers to conduct Level III inspections, and in some cases, even Level II inspections.

These officers will need to be motivated and interested in conducting commercial vehicle enforcement work, which is a specialized area of expertise. Relying on State patrols (or municipal and county agencies) to perform commercial vehicle enforcement without additional training and incentives stimulating their long-term efforts might undermine the integrity of MCSAP. Improper and unjustified tickets for alleged violations of the FMCSR or the HMTR can easily be written by poorly trained officers. If Congress wants to ensure that commercial enforcement activities continue months after training is completed, many enforcement agencies may need financial encouragement to continue these operations over the long term. This is true in part because of the pressing nature of other police business.

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[58] Personal communication with officer of Alabama Department of Public Safety, 1989.

[59] Personal communication with Lana Batts, Senior Vice President of ATA, 1990.

In many States, the State police are substantially understaffed given their current responsibilities.[60] Because of existing workload demands, all officers cannot and should not be expected to take on additional motor carrier safety responsibilities. In some States, the Governors or other senior officials have directed the State patrol to work on many other pressing safety problems and often the officers assigned to these "higher priority" areas come from the traffic control division.[61] A good example of this situation is found in the State of Maryland which used to have a specialized unit of some 15 officers who focused on enforcing traffic violations of trucks and buses. Because of budgetary limitations and changing priorities, this patrol was reduced to three or four officers by the end of 1989.[62]

The changing priorities in State enforcement programs suggest that if Congress wants to ensure that traffic enforcement receives a continuing emphasis, it should look towards the MCSAP rather than the seed money approach found in much of the 402 program or the temporary project approach funded by NHTSA's 403 program, which is primarily research-oriented and administered at NHTSA's discretion to a wide range of grant recipients. A detailed analysis of placing additional Federal dollars for commercial traffic enforcement in NHTSA's 402 program versus the MCSAP is presented later in this chapter.

EXPERIENCE INDICATES THAT THE COUPLING OF INSPECTIONS WITH INCREASED TRAFFIC ENFORCEMENT IS EFFECTIVE

There is substantial experience to document that the coupling of MCSAP inspections and increased traffic enforcement works well. For example, Sergeant Jim Luman of Illinois, a recent past president of the CVSA, stated that it was beneficial to train the 350 to 400 non-MCSAP State troopers to conduct "walk around" or Level II inspections. Illinois started training more of its traffic enforcement officers to do "walk around" truck inspections in response to research that indicated that driver error was a major causal factor of accidents involving commercial motor vehicles. Patrol officers are able to stop vehicles for probable cause reasons of either speeding or for other safety violations that they spot from their patrol cars. The State of Illinois uses officers who are interested in enforcing the motor carrier safety regulations. The Illinois State Police is so convinced of the importance of training a broader array of officers that it is now training all of its uniformed officers to conduct at least level III inspections. MCSAP funds have been used to pay for certain training expenses related to Level III instruction.[63]

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[60] Conference held in 1989 on commercial motor vehicle enforcement sponsored by FHWA and NHTSA.

[61] Personal communication with Paul Henry, 1989.

[62] Based on discussions with Maryland State Police, 1989.

Likewise, in November 1986, law enforcement officers working in Bergen County, NJ, instituted an enforcement program to address the problem of truck involvement in 24 percent of all county motor vehicle fatalities. About one year after initiation of this program which included summons for moving violations coupled with motor carrier safety inspections, the truck involvement rate for fatalities dropped to less than two percent.[64]

Other States, such as Colorado, Michigan, Montana, Oregon, and North Dakota, have successfully trained some of their officers to conduct at least level III inspections in conjunction with stops for violations of traffic safety regulations. Colorado was so pleased by its experience that it has increased its efforts in this area.[65] Past experiences of some States have shown that unmarked cars are necessary to conduct effective traffic enforcement of commercial motor vehicles. Figure 3 illustrates an inspection in conjunction with a traffic stop.

Approximately three days of classroom instruction and two days of on-the-job training is required before a typical road officer is able to perform a Level III inspection competently.[66] After this training, the road officer can combine enforcement of traffic safety violations, with increased knowledge about the regulations pertaining to commercial operators driving under the influence of alcohol, the commercial drivers license, and hours-of-service and log books. By examining such items as the driver's log, medical certificate, and license, an officer can focus on key paperwork aspects of the driver. Focused driver-only inspections are part of the reason why the commercial vehicle accident rate has been declining in Idaho.[67]

A major benefit that results from increasing the number of officers trained in motor carrier safety is the increased number of contacts these officers are likely to have with the motor carrier industry. Capt. David Rich of the Idaho State Police maintained that the more contact that is made with truck drivers, the less likelihood there is of accidents occurring.[68]

Several years ago, the California Highway Patrol conducted a special project using trained enforcement officers conducting traffic enforcement efforts targeted at commercial motor vehicles. Summary data collected by these officers showed that the frequency of commercial vehicle-involved accidents was reduced by more than 50 percent in the targeted areas.[69] (Level II or III inspections were not coupled with these traffic stops.)

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[63] Personal communication with Sergeant Jim Luman, 1990.

[64] Letter of Lt. John Pescatora to New Jersey Office of Highway Safety. Oct. 30, 1987.

[65] Personal communication with Captain Lonnie Westphal, Colorado State Patrol, 1990.

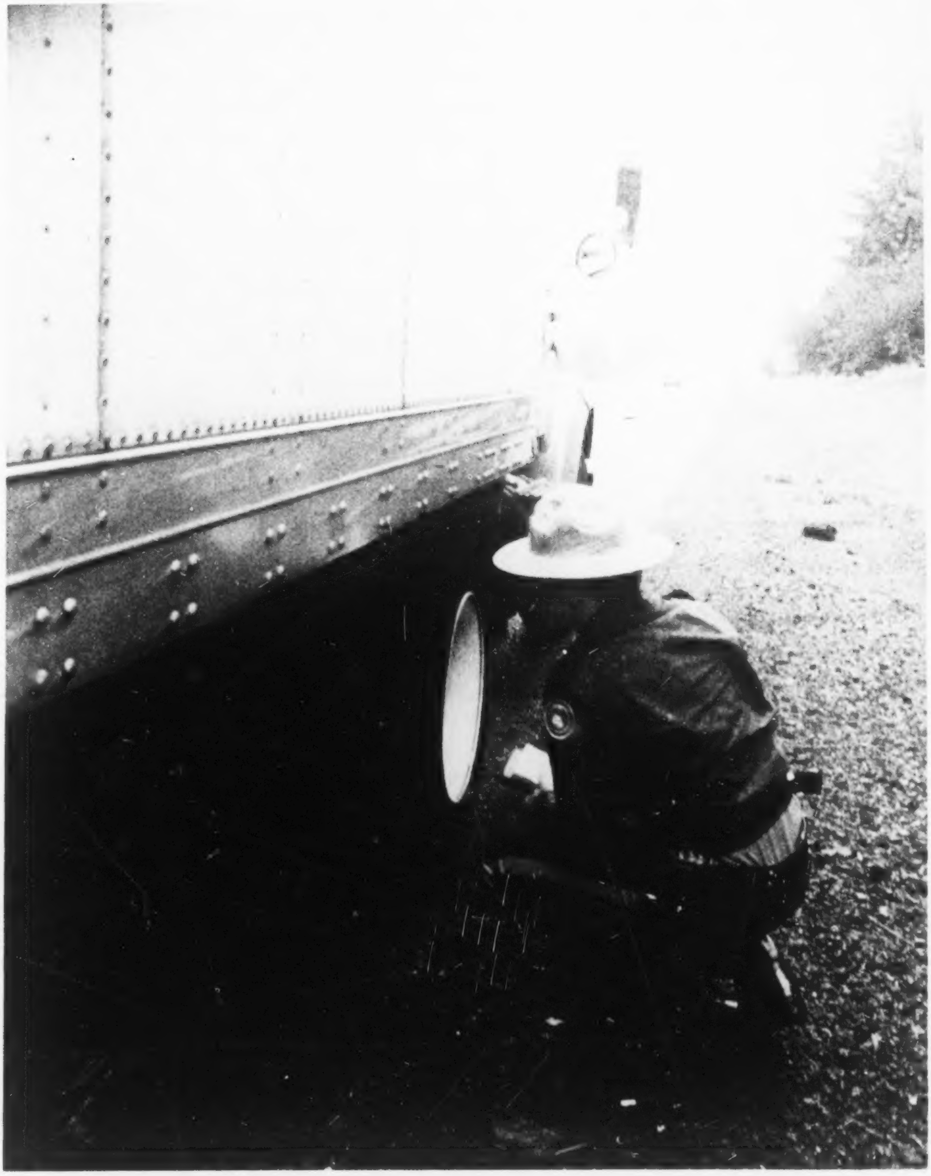
[66] NHTSA/FHWA Commercial Vehicle Enforcement Pilot Project. Workshop.

[67] Personal communication with Captain David Rich, Idaho State Police, 1989.

[68] Ibid.

[69] Personal communication with Captain Larry Rollins of the California Highway Patrol, 1990.

FIGURE 3. OREGON ENFORCEMENT OFFICER CONDUCTING A LEVEL II (ROADSIDE, WALK AROUND) INSPECTION IN CONJUNCTION WITH A TRAFFIC STOP.



ARGUMENTS AND COUNTERARGUMENTS AGAINST MAKING TRAFFIC ENFORCEMENT ELIGIBLE FOR MCSAP REIMBURSEMENTS

There are, however, several arguments that can be presented against making traffic enforcement eligible for reimbursement under MCSAP. These arguments and associated counterarguments are:

1. Roughly 20 or so of the State lead-agencies participating in MCSAP do not usually conduct traffic enforcement activities. This problem can be addressed by interagency subcontracts or memoranda of understanding signed between different parts of State government and sometimes even with local governments. As a result of these agreements those State head agency officers that participate in MCSAP but are not sworn police officers could contract with police agencies in that State to more effectively participate in MCSAP. Under this arrangement, these officers could conduct increased commercial vehicle enforcement and inspection activities. This would avoid the use of non-sworn police officers that are now MCSAP inspectors to enforce traffic laws. Such agreements have been used successfully many times in the conduct of MCSAP, but the expansion of activity contemplated could prove difficult in some cases.
2. One could argue that MCSAP funds should not be used for speed enforcement because the Federal Motor Carrier Safety Regulations (FMCSR) do not specifically set speed limits; rather, they state that the local regulations must be obeyed. (It should be noted that the Federal Government does not set speed limits or traffic laws generally, but rather speed limits are set by State and local governments.) MCSAP was conceived of as a modest program of focussed Federal assistance to States that accepted it; one could argue that it should not seek to expand to comprehensive proportions. On the other hand, the counterargument is that MCSAP should be a comprehensive program helping to promote all aspects of commercial motor vehicle safety and that the FMCSR state that applicable jurisdictional regulations must be obeyed.
3. Safety problems may sometimes result because of the stopping of a commercial motor vehicle along the highway. The counterargument is that there are established enforcement techniques and procedures, now being used, to promote the safety of the officer, the driver, and the public.
4. NHTSA is already promoting increased State speeding enforcement and other traffic safety activities; therefore, MCSAP should not get involved in this activity. Some DOT staff have stated that if increased Federal support for traffic enforcement affecting commercial vehicles is desired, it should be done under NHTSA's grant programs.[70]

On the other hand, the counterargument is that NHTSA's 402 funds, which would be used for traffic enforcement, are already spread thinly, have not been increased for several years, and have been used to support only a few projects targeted to commercial vehicles. The NHTSA effort targeted at commercial motor vehicles during FY 1989 involved roughly $1 million and principally only six States. NHTSA's support is generally not of a long-term nature, i.e., funding for specific projects generally expires after three years. The unearmarked portion of the 402 program is not designed to provide a permanent subsidy; rather, it offers primarily seed monies for programs that may be continued by the States after Federal funding stops.

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[70] Personal communication with FHWA and NHTSA staff, 1990.

Barbara Harsha, the Executive Director of the National Association of Governors' Highway Safety Representatives (NAGHSR) stated that this association is against earmarking 402 funds for increased traffic enforcement targeted to commercial motor vehicles. She argues that all of the Federal dollars to enhance State enforcement activities affecting commercial vehicles should be kept within one Federal program and that it should be MCSAP. She pointed out that States want the flexibility of determining where their 402 needs are the greatest. Earmarked resources, such as would be required to ensure that 402 funds are spent on commercial traffic enforcement, reduce the flexibility of the program.[71]

If MCSAP funds could be used for traffic enforcement, FHWA and NHTSA, working cooperatively, could ensure that activities sponsored by these two agencies are coordinated and that duplication of effort is minimized or even eliminated. Traffic enforcement as an eligible MCSAP expense would avoid the need for two grant applications, one to NHTSA and one to FHWA. Expanding MCSAP in this manner could promote a more coordinated and systematic approach to commercial motor vehicle safety.

5. Costs would be encountered in training officers to conduct both Level II and III inspections and traffic enforcement but, more expensive training costs are involved in training officers to conduct the more in-depth Level I inspection.

6. As has long been accepted practice, States are already conducting traffic enforcement activities without Federal support that affect the commercial motor vehicle industry. Experience suggests that there are limits to effective Federal intervention in the functions of State and local government. Proponents note that in this case State and local efforts, however, are best described as being uneven; many of these officers have not been trained on how to conduct a level II or III inspection; and the enforcement data collected as a result of these stops are often not entered into SAFETYNET, which is the management information system that underpins MCSAP.

7. If traffic enforcement were to be eligible for MCSAP support, there would need to be effective oversight of the uses of these funds. Proper oversight is essential with all aspects of MCSAP or any other Federal aid funding.

8. If MCSAP funds were eligible for traffic enforcement, the total number of inspections could decrease. The counterargument is that MCSAP inspections that are coupled with probable cause traffic stops, might be focused on the major causes of truck and bus accidents. Some senior MCSAP program managers assert that the total number of inspections would actually

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[71] Personal communication with Barbara Harsha, Executive Director of National Association of Governors' Highway Safety Representatives, 1990.

increase if traffic enforcement when coupled to a MCSAP inspection became an eligible MCSAP expense.

9. It could be argued that increased traffic enforcement targeted on commercial operators would be discriminatory, focusing on a small sector of drivers and vehicles in the traffic spectrum. The counterargument is that the entire MCSAP effort is discriminatory because it focuses on commercial motor vehicles and operators. Because trucks with a gross vehicle weight rating of more than 10,000 pounds are overrepresented (on a proportional basis relative to the total number of vehicles) in their involvement in fatal accidents, one could argue that increased attention to commercial drivers is warranted.

10. One could argue that additional Federal funds should not be appropriated for traffic enforcement coupled with an inspection because these funds would simply replace existing State resources devoted towards commercial motor vehicle enforcement. To counter this possible problem, Congress could require that the existing level of enforcement efforts in each State would need to be at least maintained as a condition of receiving additional MCSAP funds.

11. Using trained MCSAP officers, some of whom do not have the authority to stop a moving vehicle to cite truck and bus drivers violating traffic regulations, is not an efficient use of manpower. In response, it can be argued that those MCSAP officers conducting the indepth LEVEL I inspection could continue to do so, while more road officers could be trained to conduct Level III inspections and thus combine increased traffic enforcement with a MCSAP inspection. Further, one can argue that using MCSAP funds for this purpose would be efficient because combined traffic enforcement and Level II or III inspections would be targeted on major causes of accidents, namely, driver operating errors.[72]

12. The quality of MCSAP inspections could decrease with the dispersion of responsibilities. Proper training and appropriate quality control and monitoring must be relied upon to counter this concern.

13. Several States have enacted laws that specify that only officers who have received a certain level of training may enforce the motor carrier safety regulations. Either training would have to be geared to the levels required in these State laws or the officers would need to enforce only those statutes that they are qualified to enforce under existing law.

14. There also is the question of cost. Approximately $5 million to $10 million per year out of the Highway Trust Fund would be required to enhance existing State and local traffic enforcement activities targeted at operators of commercial vehicles. Proponents can argue that these funds would be well spent given the societal costs resulting from some violations of traffic regulations by commercial operators. It can also be argued that the U.S. Department of Transportation is already spending over $87 million annually on commercial vehicle

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[72] A Level II inspection can reveal many, if not the vast majority, of the out-of-service violations that can be detected during a Level I inspection.

safety—about $47 million on MCSAP and about $40 million on the Office of Motor Carriers in DOT.

SHOULD AND HOW COULD MCSAP INCREASE ITS INVOLVEMENT IN TRAFFIC ENFORCEMENT EFFORTS?

If Congress wants to create a comprehensive and strategically designed Federal program to promote commercial vehicle safety, it could expand MCSAP by allowing traffic enforcement when coupled to an inspection to be an eligible expense. Alternatively, Congress could strengthen the existing 402 program, which addresses traffic violations of all types of vehicle operators. Based on the analysis just presented, this report concludes that the advantages of expanding MCSAP outweigh the advantages of strengthening the existing 402 NHTSA program.

Allowing MCSAP to pay for certain traffic enforcement efforts should not replace the existing level of similar State and local governmental efforts. The clear intent would be to strengthen and augment existing efforts and capabilities by promoting training, providing technical assistance where needed, and paying for salaries to encourage increased traffic enforcement affecting commercial motor vehicle operators. To ensure that Federal dollars do not replace State dollars, it would be important to obtain baseline figures on the size of a State's existing traffic safety efforts that are coupled to roadside inspections. Reauthorization legislation could require maintenance of existing efforts in order to receive additional Federal monies. These are similar maintenance of efforts requirements for other MCSAP activities.

ROLE FOR NHTSA IN A COMMERCIAL TRAFFIC ENFORCEMENT INITIATIVE

NHTSA could promote the success of a congressional initiative that would allow traffic enforcement, when coupled with an inspection, to be an eligible MCSAP expense. Provided sufficient funds were available, NHTSA could:

—assist FHWA in expanding training about motor carrier safety regulations to the broader enforcement community. NHTSA already conducts numerous training programs for the law enforcement community. Currently, NHTSA is developing a training program specifically targeted for this purpose;

—expand Federal efforts to work with States to improve their enforcement of traffic regulations as they apply to commercial vehicles. NHTSA already has demonstrated its ability to foster commercial vehicle enforcement in a pilot project program involving six States. This project is jointly funded with FHWA at roughly $66,500 for FY 1991; and

—provide updated information on commercial vehicle enforcement. NHTSA produces a useful publication entitled "Commercial Vehicle Enforcement: A Guide for Law Enforcement Managers."

POLICY IMPLICATIONS

In summary, if a comprehensive and strategically designed Federal program to assist State truck and bus safety efforts is desired, Congress might change current Federal policy to allow traffic enforcement when coupled with an appropriate type of motor carrier inspection to be an eligible MCSAP expense. As previously explained, this would substantially increase the effectiveness and efficiency of MCSAP. NHTSA could work with FHWA to promote the success of this effort. As Claude Harris of the NTSB writes:

> Therefore, in spite of the FHWA's opposition, MCSAP-funded activities directed toward the apprehension and conviction of commercial drivers who speed, and the development of new MCSAP activities which focus attention on the driver, including determination of his fitness for duty (fatigue, alcohol, drugs), CDL validity, and evaluation of his on-the-job performance and compliance with the rules of the road (traffic enforcement) are clearly warranted.[73]

Providing increased Federal funds to promote increased State commercial traffic enforcement activities in MCSAP would avoid any problems inherent in earmarking funds in the 402 program, (which is a practice that NHTSA does not favor). This option would provide maximum flexibility to the Governors Highway Safety Representatives, because 402 funds could be used for other purposes. More importantly, placing these funds in MCSAP would allow MCSAP program managers to deal with only one Federal agency and would allow a comprehensive review of a State's commercial vehicle safety efforts through the SEP process. The States would have the flexibility to determine their priorities as to the amount of MCSAP dollars that should go towards traffic enforcement.

A comparison of Section 402 funding under NHTSA versus MCSAP funding of increased traffic enforcement targeted at commercial motor vehicles is presented in table 6.

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[73] Memorandum from Claude Harris, Dec. 19, 1990.

TABLE 6. Comparison of Section 402 Funding Under NHTSA Versus MCSAP Funding of Increased Commercial Motor Vehicle Traffic Enforcement

402 NHTSA Funding	MCSAP Funding
Usually lasts three years or less for a specific project; then it is usually up to States for 100 percent continued funding	Lasts much longer than NHTSA funds; lasts as long as reauthorization allows
Split programmatic effort requires a separate grant application—one to NHTSA for traffic enforcement and one to FHWA for MCSAP activities	Unified grant application for traffic and other MCSAP enforcement activities to FHWA
Splintered approach to commercial vehicle safety; separate program evaluations would be required	Would allow a comprehensive approach and easier evaluation of commercial vehicle safety and the effect of Federal dollars
Is a seed money program; expectation that States would assume entire 402 program costs when Federal money is withdrawn	Is more of a permanent program; would allow permanent funding of salaries and positions
More congressional committees involved in oversight	Easier congressional oversight possible
402 funds used for a variety of highway safety purposes; portion of funds devoted exclusively to speed enforcement is roughly $20 million per year, and this activity applies to all types of vehicles and pertains to enforcement of National maximum speed laws, e.g., 55 or 65 mph	MCSAP funds are focused on commercial motor vehicle safety and involves $47 million per year
In many cases, there is a declining balance in the amount of Federal funds; 1st year is 75% Federal dollars, 2nd year is 50%; and 3rd year is 25%	MCSAP is 80% Federal/20% State funds over the entire course of the grant
40% is generally expended by political subdivision of a State to carry out local highway safety programs	No required allocation to local governmental entities
No assurance that Level II or III inspections will be coupled with traffic stops and that quality of these inspections will be monitored	Quality control and monitoring of inspection is part of the FHWA effort

Comments generally pertain to unearmarked portion of 402 funds.

Some lead MCSAP agencies may be reluctant to use MCSAP funds for purposes of encouraging increased traffic enforcement. This may be especially true for States in which the lead MCSAP agency is not a highway safety or police agency and does not want to share its MCSAP funds with highway safety or police agencies in that State. This situation could be addressed by earmarking funds for this purpose or by designing the MCSAP funding formula to encourage States to conduct increased traffic enforcement activities coupled with MCSAP inspections. Congress might also consider requiring States to spend a minimum percentage of their MCSAP funds on traffic enforcement activities that are coupled with driver-only inspections.

ANALYSIS OF OTHER SAFETY INITIATIVES OF CONCERN TO THE REAUTHORIZATION OF MCSAP AND RELATED POLICY ISSUES

This chapter presents an analysis of selected safety and policy initiatives, other than those dealing with traffic enforcement, that are relevant to the forthcoming reauthorization of MCSAP. The following issues are discussed: weight enforcement as an eligible MCSAP expense; drug awareness training, enforcement of drug use regulations and drug interdiction activities; enforcement of alcohol use and possession regulations; increased number of safety and compliance reviews to be conducted by MCSAP inspectors; issues of uniformity pertaining to interstate and intrastate regulations and enforcement; the role of driver education or public safety education and MCSAP; increased involvement of local enforcement officers in MCSAP; research and development and the use of technology in MCSAP; improved use of existing data generated by MCSAP officers; verification that safety defects noted during a MCSAP inspection have actually been corrected; increased enforcement of the Commercial Drivers License by MCSAP officers; improved enforcement of the hazardous materials transportation regulations; bus safety; and adequate number of inspection facilities.

WEIGHT ENFORCEMENT

The likely inclusion of weight enforcement as an eligible activity for reimbursement under MCSAP raises several issues. Should weight enforcement be part of MCSAP? And if so, how can and should the reauthorization legislation ensure that the safety functions of MCSAP are not underfunded or overshadowed because of the funding of weight enforcement? What type of weight enforcement activities, if any, should be eligible for MCSAP support?

Background

Currently, expenses for weight enforcement are not eligible for reimbursement under MCSAP. As part of its reauthorization proposal, FHWA may seek to allow salaries and certain equipment spent on weight enforcement as a reimbursable expense under MCSAP.

The responsibility for weight regulation is jointly shared by the FHWA and the States. The enforcement activities are conducted by the States; the oversight and certification responsibility is primarily FHWA's. Precise data on how much the States currently spend on weight enforcement is unavailable, but one estimate suggested that it may be on average roughly $3.5 million per year per State. Some States, however, spend $10 million or more annually on their weight enforcement efforts. More than 120 million truck weighings occur in the United States each year. According to FHWA,

> The primary objective of weight enforcement is to ensure that pavement and bridge structures on the Federal-aid highway systems do not deteriorate prematurely due to excessive axle loads or gross vehicle weight. Weigh stations identify both excessive gross vehicle weight and axle loadings. Safety is another benefit of the weight enforcement activities. Weight enforcement activities should be integrated with safety enforcement as the two elements are interrelated, but incidental, factors in heavy truck accidents.[74]

In some States there is a close relationship between MCSAP enforcement activities and weight enforcement. According to FHWA, in roughly 20 of the States, the same agency is responsible for conducting a weight-enforcement program and for implementing MCSAP. In most of the other States, the lead MCSAP agency is involved with some weight-enforcement activities but other State agencies also conduct some of these activities.[75]

At many locations, weight enforcement and MCSAP inspections are conducted jointly. At some locations and with some States, there are administrative efficiencies to be gained by allowing the same inspector to conduct both the safety inspection and the weight check. By allowing these two activities to be funded under one program, one FHWA official argued that there will be synergistic benefits to be gained that will improve and integrate a State's total motor carrier safety program.

According to the laws of physics and the practice of truck repair, there is a relationship between the safety of a commercial motor vehicle and the weight of a vehicle. If a truck is loaded substantially over its designed weight capacity, there are many mechanical and safety dimensions of that vehicle that could be adversely affected. The brakes, tires, suspension systems, and other safety features may not perform as specified. Stability and handling may be affected adversely. The stopping distance may be longer. According to FHWA:

> A finding of the recent Transportation Research Board's *Truck Weight Study* on the effects of truck operating weight and configuration on accident rates is that without changes to other vehicle factors increased truck weights would increase their accident involvement rates.
>
> R. M. Clark, et al., in the *Heavy Truck Safety Study*, identified many interrelated factors which contribute to truck accidents. The report indicates that operating practices such as cargo loading and gross weight of a truck can affect the vehicle's safety performance by reducing the margin of safety of its operating performance capabilities.[76]

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[74] Answer submitted by FHWA to questions raised by Senator D'Amato as part of hearing before a Subcommittee of the Senate Appropriations Committee, 1990.

[75] Internal FHWA document entitled "Vehicle Size and Weight Issues to Consider."

[76] Answer submitted by FHWA to questions raised by Senator D'Amato as part of hearing before a Subcommittee of the Senate Appropriations Committee, 1990.

Likewise, some MCSAP officers interviewed for this report maintained that there are many important interrelationships between weight and safety.

Policy Choices and Considerations

There are five basic choices with respect to the question of what role weight enforcement should have in the future of MCSAP:

1. MCSAP funds could be used for any type of weight enforcement;
2. MCSAP funds could only be used for targeted weight-enforcement efforts that have special relevance to particular safety problems;
3. MCSAP funds could not be used for weight enforcement;
4. A separate program for Federal support of weight enforcement activities, separate and distinct from the MCSAP, could be created; or
5. No Federal funds could be allocated to finance weight-enforcement activities, except for the use of highway construction funds to build scale facilities.

This report does not evaluate which of these options would be "better", but, as elaborated on below, it concludes that if Congress allows weight enforcement to be an eligible MCSAP expense,

- —it would be important to ensure that weight enforcement does not overshadow the more traditional safety functions of MCSAP, especially if the basic objectives of MCSAP are to be preserved. This could be accomplished by requiring that the amount of Federal MCSAP dollars previously devoted to traditional safety activities be maintained;
- —the biggest impact on safety can be gained by requiring those weight-enforcement activities eligible for MCSAP reimbursement to be coupled with inspections addressing specific weight-related safety problems in a particular State; and
- —it would be important to require the current level of State expenses for weight enforcement to be maintained to prevent added Federal dollars from simply replacing State dollars already being spent for this purpose.

Weight Enforcement as an Eligible MCSAP Expense

Of the five options presented above, the easiest for FHWA to administer would be to allow MCSAP funds to be spent on any type of weight-enforcement activity. This approach would certainly benefit the Nation's infrastructure, provide for maximum flexibility and creativity by the MCSAP States, and would help raise additional revenues for States. (It is well known that because fines are paid for being overweight, weight enforcement is a big revenue generator.)

There are two potential problems raised by this option. First, Federal funds spent on weight enforcement could overshadow and dilute the amount of Federal funds spent on the traditional safety activities of MCSAP; and, second, Federal dollars spent to increase weight enforcement could be used to benefit only State treasuries unless there is a requirement to maintain a baseline expenditure of current State weight enforcement efforts.

The first of these problems could be addressed as a part of FHWA's review of the State's Enforcement Plan which is a part of the MCSAP grant application process. If FHWA is vigorous in its oversight efforts, it could possibly ensure that weight enforcement does not overshadow MCSAP's traditional safety enforcement activity. Alternatively, Congress could require that the amount of MCSAP funds that was previously spent on traditional safety activities be maintained if weight enforcement becomes an eligible expense under MCSAP. Congress could also establish a separate account for weight-enforcement activities. Given the split committee jurisdiction over motor carrier weight and safety enforcement in the U.S. Senate, one way to promote effective congressional oversight of this option might be to have two separate budget authorities, one for weight enforcement and one for the traditional MCSAP safety effort. Under this "split account" option, State officials would need to continue to maintain separate accounts for the time spent on weight enforcement and the time spent on MCSAP's traditional safety activities. This practice is required now because weight enforcement is currently not eligible for reimbursement under MCSAP. The second of these problems could be addressed by a requirement that a State receiving Federal dollars for weight enforcement must maintain at least the same amount of expenditures for this activity that it had prior to the receipt of Federal dollars.[77]

Some leaders in the trucking industry, such as Cliff Harvison of the National Tank Truck Carriers Association, vigorously oppose the use of MCSAP funds to pay for typical weight enforcement activities.[78] Many in industry, including ATA, do not want MCSAP funds to be diluted by weight-enforcement activities.

Closer Coupling of Weight Enforcement and Motor Carrier Safety Problems As Part of MCSAP

If Congress wants to maximize the safety benefit of every Federal dollar spent on weight enforcement, Congress could specify that any Federal funds spent on weight enforcement must be closely coupled with special motor carrier safety problems in a particular State. This could become part of the MCSAP grant application process.

An example of closely coupling weight enforcement with safety is the use of roving teams of inspectors that conduct MCSAP inspections, traffic enforcement activities, or weight enforcement during the same stop of a commercial motor vehicle. Michigan uses this concept in its Special Transportation Enforcement Team, and California uses this concept in its Mobile Road Enforcement Program, both reportedly with considerable success. These roving teams catch drivers who attempt to avoid weight and/or safety inspection sites. Special weight safety teams also could be established in locations of high accident rates or at seaports where overweight intermodal shipping containers from vessels are loaded onto trucks. California and Oregon have successfully conducted special weight and safety inspections at seaports. There also are some geographical locations where closely coupled weight and safety enforcement efforts would be especially useful. For example, overweight trucks present special safety problems on steep slopes and mountainous areas, especially in the western States and eastern coal States.

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[77] According to James Bremner, a former FHWA employee, in a FHWA demonstration project which paid for weight enforcement and which lead to MCSAP, the participating States tended to overconcentrate on weight enforcement over more traditional safety enforcement activities. Weight enforcement was an easy source of revenues. State inspection officers did not have to take drivers to court or issue long citations, they simply collected a penalty at the scale for overweight vehicles.

[78] Personal communication with Cliff Harvison, 1990.

The major advantage of this option would be that it attempts to ensure that more Federal dollars are not used simply to enhance or supplement the traditional weight operations that State enforcement officers are already conducting at scale houses. It would be designed to foster creative, new approaches to weight enforcement by closely integrating weight and safety enforcement. One could argue that this prescriptive requirement is unnecessary because some State managers will recognize these opportunities without a congressional mandate. Some also might consider such a requirement a form of micromanagement of FHWA's program responsibilities. On the other hand, because weight enforcement in some States is closely intermingled with State and local politics, a congressional requirement to couple weight and safety enforcement may be able to overcome some political constraints which now interfere with more effective weight enforcement in some areas.

Maj. Stephen Anders of the Kentucky Division of Motor Vehicle Enforcement stated that there were benefits of ensuring that weight enforcement is closely coupled to safety concerns. He pointed out that in Kentucky, many drivers with only minor weight violations would travel on roads with scale houses, but operators that were carrying grossly overweight loads, e.g., 40,000 to 60,000 pounds over the limits, would only drive on roads where there were no scales. Thus, there was a definitive need for roving patrols with mobile scales to catch such operators. Major Anders stated that it is those operators that are transporting the grossly overweight loads that pose major risks to the public and to the Nation's highway infrastructure.[79]

Arguments Against Federal Funds Being Spent on General Weight-Enforcement Activities, Especially As Part of MCSAP

In considering whether Federal funds from the Highway Trust Fund should be used for weight enforcement, it is important to note that States receive substantial amounts of financial revenues levied for cited violations of various overweight and oversize regulations. Table 7 shows the approximate amounts of fines collected by selected States. Furthermore, for many years, States have had to pay for their own weight-enforcement activities and certify that they are meeting certain FHWA standards or face the possibility of losing funds from the Highway Trust Fund.

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[79] Personal communication with Stephen Anders, 1990.

TABLE 7. Dollar Amount of Fines Received Oversize/Overweight Violation FY89

Arizona	$146,557
Arkansas	991,007
Connecticut	2,552,260
Delaware	129,343
Illinois	1,959,285
Iowa	13,233,096
Louisiana	1,835,503
Maryland	3,296,486
Mississippi	1,386,311
Nevada	278,155
New Jersey	1,623,662
New Mexico	54,950
Pennsylvania	5,303,016
South Carolina	1,344,869
South Dakota	3,034,395
Texas	3,041,625
Utah	392,725
Virginia	3,199,046
Washington	2,436,380

Source: FHWA

Some argue that weight enforcement should not be part of MCSAP because there is much uncertainty as to the relationship between a vehicle being overweight and its safety. Paul Henry, deputy administrator of the Oregon Public Utility Commission, pointed out that even though the role of overweight vehicles is not accounted for in many State accident systems, it is rare that an accident involving a commercial motor vehicle is due primarily to excess weight on the truck. Mr. Henry also argued that the financial requirements for a substantially increased weight enforcement effort could be expensive and detract from other MCSAP safety objectives. He stated that including weight enforcement in MCSAP could increase competition for MCSAP dollars and adversely affect friendly relationships among the States and/or their agencies.[80] Likewise, Capt. David Rich of the Idaho State Police stated that he had rather mixed feelings about including weight enforcement in the MCSAP effort. He was concerned that he had no control over the agency of Idaho State Government that conducts weight enforcement and would have difficulty ensuring quality control over their activities.[81,82]

Other MCSAP officers argued that they already were overloaded by their current tasks of enforcing the motor carrier safety and hazardous materials regulations, that overweight is not involved in that many accidents, and that other agencies of their State government conduct weight enforcement.

It can also be argued that the time of MCSAP inspectors is better spent conducting safety inspections, rather than by conducting manually weighing operations. Weight-in-motion technology is now proven successful and commercially available and is a much more efficient way to conduct initial weight measurements.

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[80] Personal communication with Paul Henry, 1989 and 1990.

[81] Personal communication with Captain David Rich, 1990.

[82] In those States in which the same agency conducts both weight and safety functions, the potential oversight and administrative problems discussed above are probably much less germane. Likewise, if Federal support for weight and safety enforcement were funded out of separate accounts, the competition for funding between these activities would be less of a problem.

Claude Harris of the Highway Division of the NTSB writes:

> Although increased truck weight surveillance and enforcement may be justified due to the deteriorating highway infrastructure, there appears to be no basis for assuming any direct relationship between truck weight and overall safety of operation. If the Congress chooses to allow MCSAP funds to be used for weight surveillance/enforcement, safety considerations should not be used as justification for doing so.[83]

Other Views Regarding the Use of MCSAP Funds for Weight Enforcement

ATA views weight enforcement more as a highway preservation and design capacity problem than as a safety issue. ATA maintains that MCSAP funds could be better spent improving highway safety by focusing more on the driver and the traditional safety aspects of the vehicle than by conducting weight-enforcement activities. (However, ATA views the large number of overweight containers that are found at ports as a safety problem. This is so because some of these intermodal containers are substantially overweight and are put on chassis for which they were not designed.) Lana Batts, senior vice president of ATA, stated that if MCSAP funds were to be used for weight-enforcement activities, that ATA would favor a weight-enforcement effort that is targeted to specific safety problems, such as overweight intermodal containers.[84]

A comprehensive study undertaken by the Committee for the Truck Weight Study of the Transportation Research Board addressed the need for increased enforcement of weight limits. Their study did not recommend that weight enforcement should be an eligible expense under MCSAP but rather stated:

> A portion of the revenues from overweight permits should be used to increase efforts to enforce truck weight laws, particularly on non-Interstate highways, which are more susceptible to damage by illegally overweight trucks. These efforts should include more weight enforcement personnel in the field, more use of portable scales, use of weigh-in-motion scales to screen potentially overweight trucks, and higher fines and penalties for repeated offenses.
>
> Congress should ask FHWA to conduct a study directed toward improved enforcement of truck weight laws. The study should address (a) direct enforcement (apprehension and arrest), (b) adjudication and penalties, (c) education of judges and prosecutors, and (d) research and management of enforcement activities. The study should identify specific techniques for improved enforcement and assess these techniques in terms of their impact on the magnitude and frequency of overweight trucks, personnel requirements

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[83] Memorandum from Claude Harris, Dec. 19, 1990.

[84] Personal communication with Lana Batts, 1990.

and other costs to enforcement agencies, and possible burdens on the trucking industry.

Increased enforcement would benefit highway agencies and highway users by decreasing the cost required to repair damaged pavements and bridges. Increased enforcement would also benefit truckers and shippers who operate within weight limits by eliminating the competitive advantage of those who operate illegally. Finally, increased enforcement would reduce the number of accidents caused by dangerously overweight trucks.[85]

DRUG AWARENESS TRAINING, DRUG INTERDICTION, AND DRUG USE ENFORCEMENT AS PART OF THE MCSAP EFFORT

With respect to drug-related activities and MCSAP, there are several issues that Congress might decide. By statute, should drug awareness training and interdiction activities be made a permanent part of MCSAP? And, if so, what is an appropriate authorizing level? How should funding for drug awareness and interdiction activities be related to other MCSAP funding activities?

Background

Drug-awareness training and interdiction is a relatively new MCSAP activity, born primarily during the last three years. MCSAP's current drug-enforcement activities are known as Operation DIAP—Drug Interdiction Assistance Program. This project seeks to remove commercial operators driving under the influence of controlled substances from our Nation's highways and to intercept drugs being transported by commercial motor vehicles. During FY 1990, the major funding portion is concentrated on drug interdiction activities focused on known high activity areas, including several southern tier States. The other thrust of Operation DIAP is focused on specialized drug awareness training activities to any law enforcement agency that requests it from FHWA. Thus far, more than 3000 enforcement officers have been trained as a result of FHWA's efforts. FHWA is including some materials on recognition of the impaired driver into its Operation DIAP training materials. However, because of time restrictions of the Operation DIAP training, the training provided that deals with detection of the impaired driver is quite limited in its scope and extent.

Operation DEACON and its successor Operation DIAP have resulted in the seizure of over $62 million in controlled substances and other illegal property. In addition, MCSAP-funded training or enforcement efforts have resulted in several hundred felony arrests for drugs and other illegal activities, and in several hundred other misdemeanor arrests. During many of these arrests, small stashes of drugs were found; in some, large shipments were interdicted. Among these arrests are several seizures that resulted in the confiscation of 8,677 pounds of marijuana (valued at $49.5 million and 1,163 pounds of cocaine (valued at $13.2 million).[86]

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[85] Transportation Research Board. National Research Council. Truck Weight Limits. 1990. p. 24-25.

[86] FHWA data submitted to a subcommittee of the Senate Appropriations Committee, 1990.

Paul Henry with the Oregon Public Utility Commission and Lt. Col. James Daust of the Michigan State Police maintained that all MCSAP inspectors should receive basic drug-awareness and interdiction training, even if they are not sworn police officers. Mr. Henry pointed out that the MCSAP officers, during inspections, can be placed in a dangerous situation. They need training to be aware of a potentially dangerous situation in order to protect themselves and to get assistance if needed. Lt. Col. Daust emphasized that when dealing with a situation potentially involving drugs, MCSAP inspectors who are not police officers, must be extremely careful, know the limits of their authority and their training, and seek assistance from police as appropriate.[87]

Major Richard Janney of the Maryland State Police identified additional drug-awareness and interdiction activities as a high priority. He thought that intensive eight-hour sweeps of an area would be especially effective and could make a substantial impact on the trucking industry's awareness of MCSAP's drug-enforcement efforts.[88]

An appropriate mix of overt and covert drug operations has proven to be necessary. As Lt. Col. Daust of Michigan, who is also a former President of CVSA stated, covert operations have a part to play in any effort to eradicate drug use and supplies.[89] Some other MCSAP officers assert that covert operations should be left to narcotic officers funded outside of MCSAP.

As a result of numerous successful drug-related arrests, MCSAP officers have shown that they effectively contribute to our Nation's drug enforcement efforts. MCSAP has clearly established that a very small percentage of many drivers have private stashes of drugs on board their commercial vehicles and that substantial loads of drugs are occasionally being transported in commercial motor vehicles. MCSAP officers are successfully performing drug-oriented enforcement functions unique and specific to motor carriers that are not being conducted by other Federal agencies, including various activities conducted by the Drug Enforcement Agency.[90]

A well trained and motivated motor carrier safety officer can make a substantial impact in drug enforcement. Consider the following summary of the inspection activities of one officer working for the Arizona Highway Patrol during the period of March 1989–February 1990:

> Inspected 657 commercial vehicles, over 90 percent of which were placarded (with identification signs) for hazardous materials;
>
> Arrested 29 drivers for possession of narcotics or dangerous drugs; of this number, 22 of the drivers were driving a truck transporting hazardous materials:

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[87] Personal communication with Paul Henry and Lt. Colonel Daust. 1990.

[88] Personal communication with Major Janney, 1990.

[89] Personal communication with Lt. Colonel James Daust, 1990.

[90] Based on in-depth reviews of the accomplishments of Operation DEACON and conversations with various FHWA staff, 1990.

—This number does not include drivers who were arrested for outstanding traffic warrants, or reasons other than drug possession;

—The overwhelming majority of these arrests were conducted after the driver signed a "consent to search" form, and the contraband was found in his vehicle;

A total of 58 felony charges were filed on these drivers; this figure would have been higher, but of the first 7 drivers arrested in early 1989, 6 were charged only with misdemeanors which could have been filed as felonies.[91]

The benefits of the MCSAP/FHWA drug program do not cease when Federal funds for specific State drug-interdiction activities end. Once the training is completed, some law enforcement officers continue to search for illegal drug shipments and the impaired driver. Indeed, large shipments of controlled substances have been found months after the official FHWA involvement has ended.[92] Some of the States are continuing to use drug dogs even after the FHWA grant for drug interdiction has ended in their State.

Legislative and Legal Issues Associated with Drug-Related Activities

As a result of the initiatives of the Senate Appropriations Committee, as specified in S. Report 101-121, MCSAP involvement in drug awareness and enforcement was funded at roughly $1 million for FY 1990. The Committee viewed this as interim measure until the authorizing Committees could consider a more permanent role for drug enforcement activities in MCSAP. As part of the FY 1991 DOT Appropriations Act, the House Appropriations Committee provided earmarked funds for MCSAP drug interdiction activities. Although no specific funding in this area was requested by FHWA for the FY 1991 MCSAP effort, Congress appropriated $800,000 specifically for this purpose. FHWA claimed that this activity is eligible for reimbursement under the normal grant process. Competition for such funds for other MCSAP safety purposes, however, is intense and relatively few of the States chose to use their basic grant for special drug interdiction activities.

The organic legislation creating MCSAP does not specifically mention a role for MCSAP in drug-awareness training and interdiction activities. Funding for the drug-interdiction component of MCSAP has been derived primarily either from MCSAP discretionary funds which are increasingly scarce and highly sought or from specifically earmarked funds that depend each year on initiatives from the Appropriations Committees. Thus, there is no assurance that without specific congressional guidance in the reauthorization legislation, MCSAP's drug-interdiction operations will continue at a meaningful level over the long-term, except in a few States that are willing to devote the necessary funds to make this a priority activity.

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[91] Written communication with Arizona Department of Public Safety, 1990. Subsequent inspections disclosed that approximately 5 percent of the trucks were improperly placarded, as they were not transporting any hazardous materials. Inspections were primarily conducted in the metropolitan Phoenix area on Interstate 10 during daylight hours.

[92] Based on indepth reviews of the accomplishments of Operation DEACON and conversations with various FHWA and MCSAP staff, 1990.

In the legislation reauthorizing MCSAP, Congress could specify that drug-awareness training and interdiction activities must be made a permanent part of MCSAP. Congress could require MCSAP applicants in their SEP to ensure that sufficient funds are spent on drug-interdiction activities and on training law enforcement officials to recognize the impaired driver. This requirement could be made part of the SEP grant application process. With adequate funding, widespread State involvement in this effort is likely. If Congress wants MCSAP to be more effective in dealing with drug use in the commercial motor carrier industry and in the interdiction of shipments in commercial motor vehicles, there needs to be more training and development of drug-interdiction specialists. The one- or two-day course offered by FHWA is useful, but it would appear that more could be done.

Most of the MCSAP officers interviewed for this report were supportive of including some drug-awareness training and enforcement activities in the future of MCSAP. There is concern, however, that adequate training and police powers must underpin any aspect of drug enforcement as part of MCSAP. Some MCSAP officers maintain that drug-enforcement and awareness activities should not overshadow the original purpose or intent of MCSAP. On the other hand, one can argue that the confiscation of drugs used by drivers will help save lives and reduce the number of accidents, which is the primary intent or purpose of MCSAP.

Therefore, funding for the drug-training and interdiction component of MCSAP will need to be balanced in terms of all of the other objectives of this program. At the $1 million-per-year level, most State MCSAP drug-interdiction efforts can be assisted at a minimum level of activity; at the $1.5 million-per-year level, a modest level of effort can be conducted; at the $2 million-per-year level, a fairly extensive program could be conducted. Substantially larger sums are needed to conduct more intensive "SWAT"-team operations on a regular basis.

The role of MCSAP in the enforcement of drug-use regulations is likely to be quite minimal in many States for the next few years. Enforcement efforts targeted at identifying and convicting the commercial driver using drugs are expensive, time-consuming, and require administrative planning. Many MCSAP inspectors do not have the legal authority or background to identify drug users, arrest a suspect, and order drug-testing for a criminal conviction. These officers will need to depend upon State or local police or patrol officers to pursue drug cases criminally. For some officers, there are also questions about their authority to hold a driver for drug-testing. Unresolved legal questions remain regarding random drug-testing. Furthermore, FHWA has not required the MCSAP States to adopt the Federal regulations pertaining to drug-testing required by motor carriers, i.e., the Controlled Substances Testing Requirements of 49 CFR 391, Subpart H. There also are enforcement problems in contacting owner-operators who failed drug tests given at the roadside.

In order for the role of MCSAP to increase in the enforcement of drug-use regulations, Congress could:

—require that the State Enforcement Plans detail how MCSAP will promote enforcement of drug-use regulations;

—establish several pilot projects testing the feasibility and improving the procedures for random drug-testing along the roadside;[93]

—increase funds for more MCSAP officers to receive training on recognizing the drug-impaired driver; or

—increase funds available to reimburse other non-MCSAP agencies for some of the expenses encountered in assisting nonpolice MCSAP agencies in enforcing drug use regulations.

Of course, the amount of funds spent on the enforcement of drug-use regulations needs to be balanced with competing uses and other objectives of MCSAP.

MCSAP'S INVOLVEMENT IN ALCOHOL ENFORCEMENT

With respect to alcohol enforcement, the key question is: Should and how could MCSAP's role in the enforcement of alcohol-use regulations affecting commercial drivers be strengthened? The role that MCSAP officers have in enforcement of these regulations is especially important because the overwhelming percentage of contacts that commercial drivers have with the law enforcement community will be with a MCSAP officer.

There are several ways that MCSAP officers enforce regulations pertaining to the use of intoxicating beverages by drivers of a commercial motor vehicle. Currently, if MCSAP officers find evidence that the driver: (1) is in possession of an intoxicating beverage (alcohol) other than for quantities that are manifested on shipping papers, (2) has consumed alcohol within the last four hours, or (3) is under the influence of alcohol, then that driver is declared out-of-service for 24 hours.[94] Such a violation does not necessarily affect the status of a driver's commercial operating license, the CDL.

There are, however, some enforcement actions that affect the CDL. Under FHWA's regulations issued pursuant to the Commercial Vehicle Safety Act of 1986, a driver's license is suspended for one year for a first-offense conviction of operating a commercial motor vehicle under the influence of alcohol at the .04 percent blood-alcohol concentration (BAC) level or greater.[95] A subsequent conviction results in lifetime suspension.[96] All of the States are likely to adopt eventually the .04 percent BAC limit established in the FMCSR. If this regulation proves to be enforceable and is sufficiently enforced, it will prove extremely useful in getting many impaired drivers off the highway. Various MCSAP officers indicated that there was a need for FHWA to issue more specific guidance on how the .04 BAC requirement was to be enforced.

Today, the involvement of MCSAP officers in alcohol enforcement varies substantially from State to State. In those States where the MCSAP officer is a sworn police officer, the role of

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[93] This option assumes all of the legal challenges to, and uncertainties with to random roadside drug testing are removed.

[94] For regulatory information see, for example, section 392.5 of Title 49 of the *Code of Federal Regulations*.

[95] Drivers operating a placarded vehicle and convicted of this offense are disqualified for three years.

[96] Under specified conditions States may impose a 10 year suspension for a second conviction.

MCSAP in alcohol enforcement is generally likely to be the greatest. Several reasons may explain why MCSAP's current role in alcohol enforcement is rather minimal in many States.

1. Because many MCSAP personnel are not police officers, they have had minimal training on how to recognize the impaired driver and to enforce regulations concerning alcohol use.
2. In some of the States, the .04 percent State BAC limitation for commercial operators has not yet become effective.
3. FHWA's .04 percent BAC requirement is relatively new.
4. There is no specific statement in Federal law emphasizing the role that MCSAP officers should have in the enforcement of alcohol use requirements.
5. At many inspection sites, alcohol detection equipment may be 15 to 30 or more miles away. Because of the lack of readily available, legally acceptable testing equipment, MCSAP officers may choose to simply place a driver out-of-service for 24 hours, rather than going to the trouble of pursuing enforcement under the .04 percent rule. FHWA discourages the purchase of alcohol testing equipment with MCSAP funds and refers such requests to NHTSA. FHWA views this type of activity as appropriate for NHTSA under its 402 or other grant programs. On occasion, FHWA, however, has allowed MCSAP funds to be used to purchase portable breath testers. NHTSA does not target its 402 funds for use by MCSAP officers.[97]
6. Some enforcement officers believe that it will be difficult to enforce the .04 BAC because impairment may have to be established and the arrest made prior to requiring a chemical test. Since symptoms of intoxication usually exhibited at higher BAC levels may not be present, it becomes more difficult to determine qualitatively when a driver may be near a .04 percent BAC level. Sometimes, there are legal problems in establishing the probable cause necessary to make the arrest. FHWA maintains that the .04 percent BAC level will be enforceable, in part, because it provides a new administrative mechanism to suspend the license of an impaired driver.
7. Most MCSAP inspections are not conducted during off-peak hours, such as evenings and weekends, when more impaired (drugged and drunk) drivers are most likely to be operating.[98]

If increased funds were available, MCSAP's involvement in alcohol enforcement could be substantially strengthened. If Congress wants to ensure that MCSAP plays a greater role in alcohol-use enforcement, it could:

1. establish a definitive policy on the role that it wants MCSAP (and other police) officers to play in the enforcement

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[97] If an arrest for driving under the influence is made as a result of a MCSAP inspection, MCSAP funds may be used to pay for the salary of the officer that arrests the impaired driver. Substantial time is required to criminally process the arrested driver. In some States, small amounts of MCSAP funds have been used to pay for portable alcohol testing equipment such as breath testers; however, most States have not used MCSAP funds for this purpose. If traffic enforcement on commercial vehicles becomes an eligible MCSAP expense, MCSAP's contribution to alcohol enforcement would increase because more impaired drivers would be identified.

[98] Personal communication with Lt. Gary Thomas of the Oklahoma Highway Patrol, 1990.

of alcohol regulations pertaining to commercial drivers. For example, Congress could require MCSAP applicants in their SEP to ensure that regulations pertaining to alcohol use are effectively enforced and that sufficient funds are requested for training to recognize the impaired driver. Proper and adequate training, such as that provided in various NHTSA and State police courses to all MCSAP officers on recognizing the impaired driver, would help strengthen MCSAP's role in the enforcement of alcohol use regulations. The current FHWA training on recognition of the impaired driver in its drug-interdiction course is basically an introduction to the topic. Given time constraints, FHWA DIAP courses usually cannot deal adequately with the subject of recognizing the driver impaired by alcohol. Standard Field Sobriety Training would improve the capability of MCSAP officers to detect the alcohol-impaired driver. This type of training could be provided to those MCSAP officers with arrest authority, enforcement training, and proper motivation. Additional training is also needed on the specific administrative disqualification provisions that pertain to commercial drivers convicted of violating the alcohol-use regulations;

2. ensure that sufficient funds are available to pay for alcohol-detection equipment, such as portable and legally acceptable breath-testing equipment, and to provide adequate manpower to enforce the regulations. Because many MCSAP officers do not have the authority to arrest someone for "driving under the influence," the ability of these officers to enforce the .04 percent BAC requirement depends upon their relationships with the police officers of that State. Thus, in these States, effective enforcement will require coordination and cooperation between MCSAP agencies and other State enforcement agencies;

3. direct NHTSA and FHWA to work with the CVSA and other law enforcement organizations with an appropriate level of funds to develop a model program and procedures for enforcing the .04 percent BAC limit, or[99]

4. establish a pilot project to test the feasibility and address the problems of legally acceptable, random, alcohol-use testing and enforcement by MCSAP officers. (This option assumes that all of the legal and practical questions and problems associated with random alcohol-testing of commercial operators at the roadside are addressed.) [100]

There are indeed many technical, administrative, legal, and liability issues that need to be examined and addressed regarding the role of MCSAP in enforcement of the .04 percent BAC rule. Some of these are discussed in the following minutes of a recent CVSA committee meeting that addressed this issue:

> This issue is a three-pronged one. First, we have the driver who is obviously under the influence of alcohol. There are no problems here as to what you do with the

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[99] Funds to support these activities would be useful.

[100] Much of this section is based on personal communication, with Lt. Don Uelmen of the California Highway Patrol, 1990.

> driver or vehicle. Laws and departmental policy and procedures dictate an officer's actions on this matter. Next, there is the driver with above .04 BAC but below that necessary to charge and convict a driver for driving under the influence. If this driver is intercepted at a roadside inspection, what do you do with the driver and what do you do with the vehicle to assure the safety of the motoring public as well as the driver? Because of the differing laws, rules, regulations, and policies of the many jurisdictions, no consensus was reached. Also, there is the driver who has a BAC below the .04 level intercepted at a roadside inspection. All agreed that these violations call for a 24-hour out of service action, but where do you put the driver, and what are you going to do with the vehicle? The third issue on the BAC question is how is an officer to determine if a driver is below or above .04 BAC without taking him to a fixed site where accepted testing is available. Most jurisdictions will not allow for a driver to be carried to a testing facility unless he is arrested and charged for the offense of driving under the influence. Even in the jurisdiction that might allow this action, what is the officer going to do with the vehicle while he is detaining the driver? What is the liability of the officer toward the vehicle if he has it towed or leaves it along the roadside and the driver's test results do not allow him to be charged? When using a portable breath testing device to determine the BAC level of .04 or more, can our regulations stand the court test to disqualify a driver on evidence obtained by an instrument that is not accepted by the courts in DUI cases? [101]

The ATA points out that existing accident data shows that the incidence of driving under the influence among truck and bus operators is at a "very low" level—far below the incidence among other drivers.[102] ATA stated that "the trucking industry would support random testing for alcohol use only as part of ongoing roadside inspection activity."

Again, the issue of rather limited financial resources for MCSAP is raised. As pointed out throughout this report, there are many pressing needs (including increased enforcement of alcohol use regulations) that MCSAP officers could address, but there are too few MCSAP dollars relative to these needs.

INCREASED NUMBER OF SAFETY AND COMPLIANCE REVIEWS

The issue of concern is: Will the MCSAP funding level be adequate to ensure that a sufficient number of safety and compliance reviews are conducted under MCSAP?

Safety reviews are short, basic reviews of the management control systems that motor carriers use to ensure compliance with FMCSR and HMTR regulations. A safety review is primarily education-oriented. The information obtained during a safety review is used by FHWA to determine the safety rating of that motor carrier. Compliance reviews are much more in depth analyses of the safety operations of a motor carrier and are designed to collect information that may lead to an enforcement action if such is warranted.

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[101] Letter from Cpt. W. R. Applin, Alabama Dept. of Public Safety to Paul Henry, CVSA President regarding Driver Committee Meeting at Charleston, South Carolina, 1990. This summary is a review of the discussion held regarding a driver with a positive BAC.

[102] ATA comments on US DOT, OST Docket No. 46574, Notice 89-22, 1/31/90.

Why are safety and compliance reviews so important?

Roadside inspections are important, but these enforcement efforts are really only treating a symptom. Major violations of the safety regulations discovered out on the highway are, in many cases, symptomatic of more fundamental or substantial problems of the safety operations of a motor carrier. For example, the carrier may not be maintaining all of its vehicles on a regular basis, may be hiring unqualified drivers, or may not have instituted the basic management systems needed to ensure compliance with the FMCSR or the HMTR. Safety and compliance reviews often involve discussions with management and/or safety directors of companies. Discussions with these individuals can be constructive, especially when there is genuine interest in improving safety.

An in-depth analysis of a carrier's operations cannot be performed on the roadside but must be conducted at the carrier's principal place of business. The violations discovered on the roadside must be further addressed during compliance reviews. As Michael P. Wilson of the American Insurance Services Group, who favors the increased use of MCSAP funds to preform carrier audits, safety reviews, and compliance reviews noted, it is during these activities that management problems are realized and can be addressed.[103] If more enforcement officers wrote the DOT carrier identification number on non-parking traffic citations issued to commercial motor vehicle operators and made this information available to OMC, the targeting of compliance reviews could be improved.

FHWA maintains that "roadside inspections and carrier reviews are complementary and are both essential components in promoting motor carrier safety." [104] FHWA is using the MCSAP as a leverage to encourage the States to conduct more safety reviews.

In a 1989 report, CRS described in detail the option of providing several million dollars of additional funds for MCSAP to encourage the States to conduct more safety and compliance reviews. The following conclusion reached in that report is still relevant today:

> If a more active State-conducted safety and compliance review program is desired, then either the funds available for MCSAP will have to be increased or the number of roadside inspections will need to decreased substantially. MCSAP, without any additional funds, is already stretched thinly and it is highly doubtful that most States will fund their own SR/CR program without financial assistance from the MCSAP.[105]

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[103] Personal communication with Michael P. Wilson, 1989.

[104] FHWA. Interim and Future Plans for the Motor Carrier Safety Assistance Program. p. 10.

[105] U.S. Congress. Senate. Committee on Commerce, Science,and Transportation. Motor Carrier Safety Assistance Program (MCSAP): Options Intended to Improve A Generally Successful and Cooperative Federal/State Partnership Promoting Truck and Bus Safety. S. Print 100-109. 100th Cong. 2nd Sess., Washington, U.S. Govt. Print. Off., 1988. 72 p.

If Congress wants the MCSAP States to conduct more safety and compliance reviews, this could be accomplished by increasing the total amount of funds available for MCSAP.

As noted throughout this report, there are, however, many other competing uses for MCSAP funds and for Highway Trust Funds. Furthermore, it can be argued that industry has a legal and a social responsibility to learn about and to comply with the safety regulations without the benefit of a safety review. Not surprisingly, there are many in MCSAP who to want increase the emphasis and funds devoted to compliance reviews, which are enforcement-oriented reviews.

INTERSTATE AND INTRASTATE SAFETY REGULATIONS AND OTHER ISSUES INVOLVING UNIFORMITY

The issue of concern is: What, if anything, should Congress do to promote and improve regulatory and enforcement uniformity under MCSAP?

There are three aspects to the uniformity issue that are of major concern: (1) compatibility of the State interstate and intrastate motor carrier safety regulations with the Federal Motor Carrier Safety Regulations, (2) uniformity in terms of the amount and nature of financial penalties imposed as a result of alleged violations cited by MCSAP officers, and (3) uniform acceptance of the CVSA decal.

Compatibility of Regulations

STAA states:

> The Secretary shall formulate procedures for any State to submit a plan whereby the State agrees to adopt, and to assume responsibility for enforcing Federal rules, regulations, standards, and orders applicable to commercial motor vehicle safety, or compatible State rules, regulations, standards, and orders.

Thus, as a condition of receiving MCSAP funds, States must have or agree to obtain and enforce Federal safety regulations or compatible State regulations. FHWA has interpreted this to mean that the States must have compatible or identical interstate and intrastate motor carrier safety and highway-oriented hazardous materials transportation regulations. The intrastate motor carrier safety regulations are allowed to fall within certain internal tolerance guidelines that FHWA has established. These guidelines have never been subjected to the regulatory processes of the Administrative Procedures Act and subsequent rulemaking. The CVSA has petitioned the FHWA to submit its internal guidelines on intrastate compatible to a rulemaking procedure. FHWA allows a State to participate in MCSAP with incompatible regulations if it agrees to a schedule of specific actions for enacting the necessary changes to obtain compatibility within three years.

States vary considerably in the extent to which they have compatible or consistent regulations with the FMCSR. Most of the issues associated with noncompatibility involve the intrastate motor carrier safety regulations, but some States still have problems achieving compatibility of their interstate motor carrier safety regulations with the FMCSR. In fact, as of mid 1990, FHWA reports that 29 MCSAP States do not have compatible intrastate regulations, and 16 do not have compatible interstate regulations. In most States, compatibility with the HMTR is generally not judged by FHWA to be an issue.

Many State officials vigorously disagree with FHWA's interpretation of the SSTA and with FHWA's policies and efforts to "force" them to have their intrastate regulations compatible with the FMCSR. Many State officials believe that the FHWA has "no business telling them how to regulate our intrastate trucking operations." They believe that their individual States have the legal right to enforce intrastate motor carrier safety regulations. They point out that these rules have been in effect for many years and have been approved through State legislative or regulatory processes. Furthermore, the argument is raised that intrastate trucking operations have little effect on the safety of interstate and foreign commerce. Participants in the recent Traffic Safety Summit held by DOT concluded that:

> State law enforcement officials expressed concern over the probable reaction by state legislatures to being pressured by the federal government to apply interstate commercial regulations to intrastate carriers. . . . Additionally, changing commercial drivers requirements, like raising the drivers age limit to 21 years, would have both an economic and employment impact. The result would be counter-productive with an increase in the number of non-compliance states.[106]

Some States, such as Florida, have taken a definitive position against FHWA on this issue. During FY 1989 and FY 1990, this State could not comply with the Federal directives to meet certain FHWA requirements regarding intrastate regulations; consequently, FHWA denied MCSAP funds to Florida.[107] Increasingly, more States are arguing that they have the right to impose their own intrastate safety regulations that differ from the FMCSR. Many other States believe that they have the right to formulate their own intrastate safety regulations that may differ from the FMCSR. At the recent Traffic Safety Summit, it was recommended that:

> DOT should place less emphasis upon compatibility of State motor carrier safety regulations on intrastate carriers until all states are compatible with the interstate regulatory requirements.[108]

FHWA maintains that regulatory uniformity is extremely important. FHWA can argue that there is a major need for uniformity to promote compliance with the safety regulations. Some enforcement officials believe that the regulated community cannot be expected to follow substantially different safety regulations in different regions of the country. Uniformity of regulations helps promote understanding and compliance with the regulations. On the other hand, many MCSAP officers maintain that uniformity is fine for interstate regulations, but not intrastate regulations.

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[106] U.S. DOT. Traffic Safety Summit. p. 40.

[107] The Florida State legislature did not make the changes in State law required by FHWA to allow the State to participate in MCSAP.

[108] U.S. DOT. Traffic Safety Summit. p. 40.

Because it decides which States receive MCSAP funds, FHWA is able to exert considerable leverage on the States. Through negotiating documents which become part of the grant agreement, FHWA is able to obtain agreements from State MCSAP officials that they will resist efforts in their States to weaken existing safety regulations and to pledge specific timetables for trying to make their State regulations compatible with the FMCSR and HMTR. FHWA has threatened to withhold MCSAP basic grants as well as discretionary funds until States sign and make progress on good faith agreements designed to get their intrastate regulations compatible with the FMCSR.

Conflict between some MCSAP States and the FHWA has arisen partly because of the vagueness of the provisions of the STAA regarding whether Congress intended compatibility to apply to State intrastate as well as State interstate motor carrier safety regulations. **When MCSAP is reauthorized, it will be important to address this issue and to clarify whether compatibility applies to intrastate regulations as well as interstate regulations.** Congress may also need to give guidance on its meaning of compatibility.

Settling this issue is a two-edged sword: If the issue is not settled soon by Congress, some States may decide that the amount of MCSAP funds received is not worth the political and economic costs of changing their State laws. Consequently, more States might drop out of MCSAP, thus reducing the effectiveness of the overall program. Alternatively, some MCSAP States may bring their case to the courts. During the last two years or so, FHWA has strengthened its efforts to increase regulatory compatibility. As this occurs, the possibility of legal action challenging FHWA's policies and actions on compatibility appears to be increasing.

Although many State officials object to some of FHWA's efforts to strengthen intrastate regulatory compatibility, no other State besides Florida has dropped out of MCSAP for a period of at least two years.[109] The possibility of receiving even larger amounts of MCSAP funds may further reduce the possibility of other States dropping out of MCSAP. There are some MCSAP managers, however, that may not be able to convince their State legislatures to change existing intrastate variances regardless of the amount of available MCSAP funds.

If Congress decides that compatibility with the intrastate regulations is not required as a precondition for receiving MCSAP funds, then some believe the States may ease their intrastate regulations that were recently strengthened to allow these States to participate in MCSAP. Others believe this possible "backtracking" is highly doubtful. Legislation reauthorizing MCSAP could prohibit any "backtracking" of State regulations; some State officials, however, might be unable to prevent State legislatures from passing such initiatives.

If Congress decides not to settle this issue, FHWA would likely continue its current policy of trying to increase the compatibility of each State's regulations using its good faith agreement efforts and threatening to withhold MCSAP funds if a State refuses to adopt regulations compatible with the FMCSR. One FHWA official suggested that FHWA's policies of promoting uniformity have been successful and many intrastate variances no longer exist because of FHWA's efforts.

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[109] South Dakota was never in MCSAP.

Uniformity of Penalties

Another concern associated with uniformity is the issue of varying penalty amounts that result when tickets are issued because of alleged violations discovered during MCSAP inspections. The CVSA is working diligently to reduce problems associated with the wide variations in the amount of these penalties. CVSA has adopted what it considers to be fair, reasonable maximum penalty levels for different types of violations, primarily out-of-service citations. Their recommendations were developed as a result of detailed and lengthy discussions with numerous parties, including industry and government. However, it is unlikely that these recommended penalties will be adopted uniformly by all of the States participating in MCSAP. It will also be difficult to influence the actions of the numerous types of courts and judges that set fines and penalties. Even within an individual State, penalties may vary substantially. In order to increase the likelihood of adoption, some MCSAP States may need much more rigorous encouragement from FHWA or the Congress. Some MCSAP officers may be unable to convince their legislatures or courts to enact and adopt CVSA's recommended fine schedule.

The ATA has addressed this subject: "The problem of States and localities charging widely varying fines for the same violations has reached epidemic proportions." ATA encourages Congress to direct FHWA to do all that it can to urge States to adopt the recommended maximum fine schedule being developed by CVSA.[110] Lana Batts of ATA is fearful that some in the motor carrier industry would reduce their support for MCSAP if this program was viewed as a way to raise monies and not to accomplish its original purpose.[111]

Acceptance of the CVSA Decal

Another issue associated with uniformity is acceptance of the CVSA decal. This decal, which is issued for up to 90 days, indicates that an enforcement officer has inspected and passed a vehicle or a trailer unit within an indicated period of time according to procedures and criteria approved by CVSA. It has been the practice of some MCSAP States not to honor the CVSA inspection decal issued by another State.[112] There is no FHWA requirement that they do so; FHWA, however, supports the reciprocity of the decal.[113] Lana

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[110] Alterman, Richard. Statement of the American Trucking Associations, Inc., on the FY 1991 Budgets of the DOT and ICC. Before the House Subcommittee on Transportation, Committee on Appropriations. Apr. 25, 1990. p. 12. Unpublished document.

[111] Personal conversation with Lana Batts, Senior Vice President of ATA, 1989 and 1990.

[112] The decal does not mean that the vehicle or driver is "safe" for the next 90 days. It merely indicates that at the time of the inspection no defects of critical equipment items were found. CVSA procedures do not prohibit a reinspection of equipment with a current decal.

[113] Personal communication with FHWA employees, 1990.

Batts of ATA stated that acceptance of the CVSA decal is extremely important. She indicated that support for MCSAP could diminish if this reciprocity issue is not adequately addressed.

As part of the MCSAP reauthorization legislation, Congress might consider requiring FHWA, in consultation with CVSA, to conduct a study on the use and effectiveness of the CVSA decal and to recommend ways to increase the acceptance of the CVSA decal.[114] Alternatively, this issue might be addressed solely by CVSA. It can be argued that if uniformity and reciprocity are desirable goals, CVSA needs to encourage more strongly the acceptance of the decal by its members.

THE ROLE OF DRIVER OR PUBLIC SAFETY EDUCATION IN MCSAP

In this area, the key issues include: What role should MCSAP have in driver education or public safety education? Should MCSAP funds be spent on educating the public regarding how to share the road with the commercial motor carrier industry or on educating legislators or judges about the motor carrier safety laws? Should additional funds be allocated for these various educational activities? How should these activities be coordinated with those of the NHTSA?

A major means of promoting motor carrier safety is education. But what type of educational activity, if any, is appropriate for Federal support? At least three different types of educational activities could be conducted: (1) Educating the motoring public on how to share the road with the truck and bus operators could help reduce fatal accident rates. This is so because the motoring public causes many of the accidents involving commercial motor vehicles; (2) To further promote highway safety, increased education of the industry on sharing the road with the public may also be valuable; and (3) The interests of highway safety may also be served when judicial and legislative officials as well as prosecutors working for State and local governments are better informed about the benefits of reasonable but meaningful enforcement of the commercial motor carrier safety and the hazardous materials transportation regulations.

The importance attached to these educational strategies by different MCSAP States varies substantially. Relatively few of the recent MCSAP State Enforcement Plans submitted to FHWA presented initiatives for a substantial public or (non-commercial) driver education programs that pertain to motor carrier safety. This activity is not stressed within the current framework of MCSAP partly because there are not enough funds and possibly because it is difficult to provide tangible evidence of the benefits of this use of funds. FHWA does not have accurate records of MCSAP expenditures used for this type of educational activity. MCSAP funds spent to educate the motoring public would augment existing industry and non-MCSAP efforts in this area. Based on an informal survey of many of the MCSAP States, it appears that MCSAP funds are rarely spent on all of the educational approaches outlined above.

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[114] A small amount of funding is likely to be needed to support this effort.

Many States, however, use MCSAP funds to educate the motor carrier industry during safety reviews or special safety presentations on the FMCSR and the HMTR. This last activity is by far the most significant and common educational activity used by MCSAP officers. As Capt. William Spencer of the Louisiana State Police stated, the importance of working with the motor carrier industry to assure the success of MCSAP should be emphasized.[115] The Transportation and Environmental Safety Section of the Louisiana Office of State Police has stated that it "will assist carriers in all ways possible to enhance highway safety." [116] One of the recommendations of the recent Traffic Safety Summit held by DOT was to: "allocate more resources to the education of commercial motor vehicle drivers in order to reduce commercial motor vehicle crashes." [117]

MCSAP focuses primarily on one side of the equation of truck and bus safety—attempting to prevent accidents caused by the motor carrier industry either because of vehicle or selected driver violations. This important safety program, however, is paid for by all users of the highway through the various Federal gasoline, diesel, tire, and other excise taxes that are deposited into the Highway Trust Fund. But, most of the States do not use MCSAP funds to educate the public on how to share the road with the commercial motor carrier industry.[118] There are, however, some States, which spend other State funds outside of MCSAP to inform the motoring public about how to share the highways safely with the commercial motor carrier industry.

Changes in Federal policy will be needed if educational activities are to become an integral part of Federal truck and bus safety programs, including MCSAP. Furthermore, educational efforts will need to become part of the backbone of MCSAP or of some other Federal initiative to catalyze a substantial reduction in the percentage of truck- and bus-involved accidents caused by the driving public. Perhaps, NHTSA, which already finances a great deal of public safety information, could better assist the MCSAP States in this process. This approach would probably increase the effectiveness of the Federal dollars spent.

Many MCSAP managers and enforcement personnel assert that it is especially important to educate members of the judicial system about motor carrier safety. Some MCSAP officers have reported that their efforts at promoting safety have been frustrated by some judges who do not understand motor carrier safety and the importance of meaningful financial penalties for failure to comply with applicable regulations. At the recent Traffic Safety Summit sponsored by DOT, it was recommended to "initiate a judicial outreach program that provides information and training to prosecutors and judges on the severe and negative impact of motor carrier safety violations on traffic safety." [119] MCSAP has funded some projects to educate the judiciary, but more could be done if funds existed.

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[115] Personal communication with Captain William Spencer, Louisiana State Police, 1989.
[116] Louisiana State Police. Louisiana Motor Carrier Safety. p. 1.
[117] U.S. DOT. Traffic Safety Summit. Summary of Proceedings. 1990. p. 37.
[118] Based on in depth reviews of numerous State enforcement plans and discussions with various FHWA officials.
[119] U.S. DOT. Traffic Safety Summit, p. 38.

There are some drawbacks associated with increased funding for these various types of educational activities. These include:

1. the many competing uses for these MCSAP funds;
2. the difficulty in measuring the effects of educational activities. Hundreds of thousands of dollars can be spent on driver education, but there is no assurance that these funds will help reduce accident rates; and
3. the question of whether MCSAP is the appropriate funding source or program for some of these activities.

THE ROLE OF LOCAL GOVERNMENTAL ENFORCEMENT OFFICIALS IN MCSAP [120]

The key issue in this area is: Should funds for MCSAP be increased to help support more involvement of motor carrier safety officers employed by local governments?

There are many reasons why a comprehensive and effective MCSAP will require increased participation by local enforcement personnel. Local involvement is especially important in those jurisdictions where the State agency participating in MCSAP is not encouraged or allowed to enter local governmental jurisdictions. In addition, the need for local governmental participation in MCSAP increased substantially when FHWA and Congress eliminated the exemption from certain safety regulations in specified commercial zones around selected urban areas. As a result of this action, many local operators are now subject to the motor carrier safety regulations. Furthermore, local enforcement officers who have been trained to conduct at least a Level III inspection could help implement any initiative to increase traffic enforcement coupled to MCSAP inspections. When legally acceptable and appropriate, local enforcement officers could conduct many inspections on vehicles with a gross vehicle weight rating of 10,001 to 26,000 lbs.

The availability of funds and the willingness of State agencies to share their limited MCSAP dollars has severely reduced local agency involvement in MCSAP. Some States, however, have been able to stretch their MCSAP funds to include some local government agencies in their program. For example, in Missouri, the St. Louis Metropolitan Police Department receives some MCSAP dollars, but there is still substantial demand for increased involvement by other Missouri local governments to participate in MCSAP. Oregon has successfully used local enforcement officials for years in MCSAP. Success rests on the fact that these local officials are willing to receive training from State officers, conduct the same level of quality inspection, and follow the same procedures used elsewhere and sanctioned by CVSA and FHWA.[121]

The recent Traffic Safety Summit held by the DOT addressed this issue and recommended a program to: "permit local law enforcement agencies to participate in the MCSAP with the approval of the state lead agency under the stipulation that the local law enforcement agency will be held to the same standard of enforcement."[122]

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[120] As used in this report, the term "local governmental enforcement officer" is used rather broadly to include all non-State officers such as city or county police and other officers conducting inspection activities who are not State or Federal governmental employees.

[121] Personal communication with Paul Henry, Oregon Public Utilities Commission, 1989.

Increased MCSAP funds for more local government involvement will require increased supervision and monitoring of these activities by FHWA and the MCSAP State lead agencies. To promote uniformity and quality control, the State lead agencies would need to coordinate and review local governmental activities and to collect inspection and enforcement information. These oversight functions will also require funds. Some MCSAP managers have reservations about increased local government participation supported by increased MCSAP funds. For example, Bob Brooks of the West Virginia Public Utility Commission thought that fully dedicated State MCSAP inspectors should receive funds first, because many local enforcement officers are assigned numerous other safety and law enforcement tasks to perform and that enforcement of the motor carrier safety regulations would be given too low a priority by these local officers.[123]

In some commercial zone areas, increased enforcement of commercial motor carrier safety may be difficult for a variety of reasons. These include: the lack of available sites for Level I inspections, the willingness of State agencies to share MCSAP funds with local governmental entities, the limited availability of staff for commercial vehicle activities, and presence of State laws or policies that limit the ability of local enforcement personnel to conduct motor carrier-oriented inspections.

RESEARCH AND DEVELOPMENT AND THE USE OF NEW TECHNOLOGIES TO IMPROVE MCSAP

The key issues in this area are: What technologies could be further developed or modified and exploited to improve the effectiveness and efficiency of MCSAP? How much money will be required to encourage the States to use these technologies? Is a separate research and development funding mechanism needed to ensure that new technology is available to underpin improvements in MCSAP?

There are a wide array of technologies that could improve the effectiveness and efficiency of MCSAP. For example, technologies that are available now or will be available soon could help target inspections and provide key information useful to inspectors. The inspection process would be improved if the following information were readily available: the recent inspection record of a particular vehicle or trailer; the safety rating and inspection record of the carrier; and the inspection history of a vehicle, trailer, and driver (including information on the status of the driver's license). All of these data are not routinely available to inspectors today. Technologies, however, are being tested in a few of the MCSAP States that would allow for much better targeting of the inspections. For example, FHWA has recently developed a system called SCORE that will give enforcement officers information on the inspection history of a particular carrier and its safety rating as a vehicle passes an inspection site.

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[122] U.S. DOT. Traffic Safety Summit. p. 39.

[123] Personal communication with Bob Brooks, 1989 and 1990.

Technology also is available to decrease the amount of time an inspection takes, to find specific citations in the "Code of Federal Regulations" that apply to a specific vehicle and inspection situation, and to help train new inspectors. By submitting inspection information directly into SAFETYNET, new technology can eliminate data entry problems. There are major costs with advanced technology that need to be reduced to encourage more States to purchase and use these systems.

FHWA is encouraging the development and use of lap top computers and other technologies by the MCSAP States, but the extent of Federal support is quite constrained because of the availability of funds. For example, FHWA has funded the development of software to accommodate the New Hampshire inspection process and to allow this State to make effective use of lap top computers to complete MCSAP reporting requirements. However, the use of computer lap tops to record inspection data, although greatly desired by many State personnel, is not widespread.

FHWA has not yet defined or developed an "ideal" system that would provide needed information to maximize the effectiveness and efficiency of MCSAP inspectors. Neither its R&D budget nor MCSAP funds are adequate to conduct this type of activity and still meet other pressing needs. Nevertheless, based on the technologies being tested now, it is known that substantial cost savings could be realized by reducing inspection and data-entry time requirements. Improved targeting of inspections based on indicators of past performance would improve the effectiveness of MCSAP.[124] There are other technological opportunities to improve the effectiveness and efficiency of MCSAP. Technology is being developed that may one day allow a definitive, accurate, legally acceptable measure of fatigue to be made along the roadside.[125] Other experts, however, believe this is still years away.

As a result of a lack of funds and because of other program priorities, there are several major shortcomings in FHWA's ability to help the MCSAP States and in the ability of some States to use modern technology to improve their own MCSAP enforcement efforts:

—many MCSAP inspectors are not equipped with the technology to readily check the status of a substantially increased number of commercial drivers licenses;[126]

—in many States, MCSAP inspectors are not using the best available technology to accomplish their mission;

—MCSAP inspectors usually do not have the compliance history of the driver, the vehicle being operated, or the carrier maintaining the vehicle.[127]

The current Federal research program underpinning MCSAP is not large enough to meet the technological needs of MCSAP. Current research for MCSAP is funded out of the R & D account—

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[124] Based in part on discussion with New Hampshire MCSAP officer and FHWA personnel, 1989.

[125] Controversy surrounding the use of these measurements and the definition of "fatigue" is likely to limit the widespread use of these technologies for many years.

[126] Independent of their dispatchers and existing radio communication systems.

[127] This type of information might be useful in deciding which vehicles to inspect. In general these data may be even more important in the conduct of safety and compliance reviews.

roughly $1.5 million per year—of FHWA's OMC, or out of discretionary MCSAP funds. There are numerous competing and increasing demands on both of these sources of money. To promote the development and use of effective technologies for MCSAP officers, Congress might consider whether to establish a separate research and development and technology transfer account as part of MCSAP. Alternatively, this R&D support could be combined with a larger R&D budget for FHWA's OMC.

If Congress decides to increase the funds available for MCSAP, the participating States by their own choosing will gradually make greater use of the efficiencies offered by technology.

BETTER USE OF SAFETYNET AND IMPROVED ACCIDENT INVESTIGATIONS TO IMPROVE THE EFFECTIVENESS OF MCSAP

It would be helpful if all MCSAP officers had ready access to current, nationwide inspection, accident, and audit data on specific drivers and carriers. This goal has not yet been reached and may be years away without a substantial increase in MCSAP funding. Achieving this objective will require several additional years and the continual upgrading of SAFETYNET, MCSAP's management information system. Many of the MCSAP officers interviewed for this report thought that continued support and development of SAFETYNET was key. It is only through SAFETYNET that an enforcement officer can get a national perspective on the performance of a motor carrier.[128] At a 1990 conference conducted by FHWA on highway accident countermeasures, the task force on motor carrier safety recommended an increase in funding for MCSAP, especially to support improved information systems, such as SAFETYNET.[129] Likewise, enforcement and safety managers at the 1990 Traffic Safety Summit held by DOT addressed this concern and recommended that:

> Utilize more effectively the existing data systems that provide information on the commercial vehicle driver, employing motor carrier, equipment violations, crash data, and safety and compliance reviews. All data must be made available upon request for these information systems to be effective.[130]

Detailed statistical data on inspections, audits, and accidents are useful in implementing a comprehensive commercial vehicle safety program. To improve the effectiveness and efficiency of MCSAP, States participating in MCSAP could submit detailed carrier and vehicle inspection, audit, and accident information into SAFETYNET. Some States do not now file accident reports into FHWA's central computer system.

It is now FHWA's policy that all MCSAP States should implement Phase I of the SAFETYNET system (i.e., the inspection, accident, and census matching modules) and that States routinely submit driver and vehicle inspection data into SAFETYNET.

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[128] Personal communication with Captain David Rich, Idaho State Police, 1989.

[129] U.S. DOT. Proceedings. Symposium on Effective Highway Accident Countermeasures. 1990. p. 143.

[130] U.S. DOT. Traffic Safety Summit. p. 38.

FHWA has issued a memorandum that states that failure to submit such data routinely could result in loss of MCSAP funds.

Several of the MCSAP officers interviewed for this study expressed interest in assuring that the future MCSAP program provides sufficient funds for accident investigations, including funds to train a select cadre of their officers to receive training in accident reconstruction. Captain David Rich of the Idaho State Police stated that accident investigations improved the quality of accident reporting, which in turn provides information more useful to the overall MCSAP effort.[131] Lana Batts, a senior vice president of ATA, also stated that there is a need for improved data about the causes of accidents involving commercial motor vehicles.[132]

INCREASED ENFORCEMENT OF THE COMMERCIAL DRIVERS LICENSE REQUIREMENTS BY MCSAP OFFICERS

In this area the major issue is: How can enforcement of the Commercial Drivers Licensing requirements be increased under MCSAP?

As a result of the Commercial Motor Vehicle Safety Act of 1986 (P.L. 99-570), drivers of specified commercial motor vehicles must obtain, by April 1992, a commercial drivers license. Issuance of the license is conditional upon passing certain testing requirements set by the issuing State. These State tests must meet certain minimum requirements set by FHWA. A driver may hold only one commercial license at a time.

One of the most important features of this licensing program is that drivers can be disqualified from operating a commercial motor vehicle for prescribed periods of time. This disqualification can result because of convictions for certain violations. For example, implementation of regulations issued pursuant to this law will disqualify for 60 days drivers who have been convicted of two violations of driving with excessive speed during any three-year period. One-year disqualifications can result for convictions of driving a commercial motor vehicle while under the influence of specified controlled substances or with a blood alcohol concentration of .04 percent or more. Removing drivers that have been convicted of such violations from the road and keeping them off for specified periods would likely result in major benefits to safety.

A key to successful implementation of the new CDL law is enforcement: enforcement primarily by the MCSAP community. During any MCSAP inspection, the enforcement officer asks to see the license of a driver. In many States, if not most, the officer does not routinely check the current status of the license, i.e., whether the license has been suspended or revoked because of a disqualifying conviction. An officer will typically check the license only if he or she has reasonable suspicion or a hunch that the license is suspended or revoked. In some States in which State Department of Transportation or Public Utility Commission officers are conducting inspections, CDLs are rarely, if ever, checked.

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[131] Personal communication with Captain David Rich, 1989.

[132] Personal communication with Lana Batts, 1989.

In many States, the MCSAP officer must use his radio to have a dispatcher or a State communications systems operator check the status of a license through the National Law Enforcement Telecommunications System (NLETS) or some other mechanism. NLETS allows the law enforcement officer to get the status of a license in any State. NLETS has recently improved its system and now claims that it can report the status of a license from any State in less than a minute.[133] Ensuring that drivers are not using a CDL that has been suspended or revoked will be especially important in those States and instances where a State motor vehicle administration is unable to obtain a suspended or revoked license back from a driver.

The importance of checking the status of a driver's license must be emphasized. Checks by Nevada officers show that approximately 10 percent of commercial vehicle drivers are using a license with some problem, e.g., using suspended, revoked, or expired licenses. Another CDL check conducted for FHWA by Nevada shows a "hit" rate of roughly 17 percent, of which roughly 67 percent were drivers using suspended licenses.[134] In similar checks, Idaho MCSAP inspectors are finding that about six percent of the commercial operators checked are driving on a disqualified license, e.g., a license that has been suspended, revoked, or expired.

Senior enforcement officers of some States maintained that by using only existing communication systems, their MCSAP officers would be unable to check routinely the license of most drivers. They stated that such requests would tie up existing police communication systems; and therefore, their MCSAP officers could only check the status of a small percentage of the CDL. In these States, there is a need for a readily usable communications system to allow MCSAP officers to tie directly into NLETS or some other data linking/information system, without going through their dispatchers. This technology is commercially available.

There are at least two States, however, that are already checking the current status of a large percentage of the CDLs that are presented to MCSAP officers. There are also States where it may not be a major problem to increase the number of CDL status checks using existing communication systems.

Nevertheless, in order to ensure that more MCSAP officers routinely check the status of more CDLs, it appears that at least three things may need to happen:

1. There may need to be a more definitive FHWA policy or a congressional mandate on the need to increase substantially the number of status checks of CDLs that are conducted during MCSAP inspections;
2. Some MCSAP inspectors may need to be equipped with an information system that is independent of their existing radio-linked communications systems to allow them to check more of the CDLs that are presented at the roadside; and
3. Additional MCSAP funds would likely be needed to be appropriated to implement item number 2.

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[133] Personal communications with NLETS staff, 1990.

[134] Nevada. MCSAP Implementation Grant Application. Fiscal Year 1990, p. 13.

If these three steps were taken, the likelihood of more CDLs being checked than might otherwise occur, would increase. The executive director of the CVSA asserted that much more should be done by FHWA working cooperatively with the MCSAP States to ensure effective enforcement of the CDL at the roadside.[135] A definitive plan, strategy and funds would help ensure effective enforcement of the CDL.

FHWA estimates that the capital costs of setting up a system that would allow the CDLs presented at the roadside to be checked as to validity and status would be $2 to $3 million. FHWA estimates the operating costs of such a system at $200,000 to $300,000 annually, assuming 500 checkpoints nationwide and 1 million inquiries per year.[136]

CRS has estimated the expected costs that would be involved in ensuring frequent enforcement of the CDL requirements by MCSAP officers. CRS also assumed that 500 checkpoints nationwide could be used to generate 1 million inquiries per year. For an electronic inquiry system that would communicate with the NLETS, or some other data linking telecommunications system such as AAMVNETS, over an existing nationwide commercial data communications network, the capital costs are estimated at roughly $4 to 5 million.[137] MCSAP inspectors could send inquiries regarding the status of a CDL and receive replies from NLETS or some other system using either a small, hand-held computer terminal or a computer terminal that is installed in their vehicle or at a fixed facility. CRS estimates the yearly operating costs of this system at $100,000 to $200,000 annually. These estimates are based on information provided by a commercial vendor that serves the data communication needs of the law enforcement community. The electronic inquiry system specified would also allow MCSAP inspection personnel to quickly obtain other types of pertinent information that may be available through NLETS.[138]

On the other hand, one could argue that other than by providing sufficient funds for the entire MCSAP effort, Congress does not need to address the issue of CDL enforcement in MCSAP. It is generally recognized that to date FHWA has successfully implemented P.L. 99-570, and that FHWA is already trusted with the responsibility of ensuring effective enforcement of this law. FHWA plans to prepare additional video and other training information for MCSAP officers on the enforcement of the CDL. The counterargument is that given the approximate $60 million of Federal funds that has already been appropriated to enhance State CDL programs and to meet the detailed directives in the 1986 Act, it would be consistent and appropriate for Congress to provide the funds and direction necessary to ensure increased enforcement of the CDL by MCSAP officers.

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[135] Personal communication with William Fiste, 1990.

[136] FHWA responses to questions posed by a Subcommittee of the Senate Appropriations Committee, 1990.

[137] Some enforcement officers may not be granted access to NLETS; consequently, access to two telecommunication systems may be necessary.

[138] The author gratefully acknowledges the assistance of Stephen Gould of the Science Policy Research Division of CRS for his contribution to this section.

VERIFICATION OF CORRECTION OF VEHICLE AND DRIVER VIOLATIONS

The issue of truck drivers violating out-of-service orders issued by MCSAP inspection personnel has been previously addressed in another CRS report.[139] Subsequent studies conducted by individual States and financed by FHWA have confirmed that this is a problem. In those cases in which reinspection was performed, roughly 9 percent of the driver or vehicle out-of-service violations were not corrected before returning to the highway.

The MCSAP enforcement community has been deeply concerned about this issue, and the Executive Board of the Commercial Vehicle Safety Alliance has recently passed a policy statement that sets a goal of verifying the repair of 15 percent of the out-of-service violations detected. As summarized by Paul Henry,

> The verification package being implemented by the Alliance is divided into out-of-service defects and non-out-of-service defects. This policy is further divided into on-site and offsite verification practices. The basics of the program require: (1) As many out-of-service on-site verifications as resources permit be made. These verification inspections can be made by any CVSA-certified officer and are conducted while the inspection facility is open; (2) Utilizing unmarked radio-equipped cars downstream from the inspection site, relay pertinent vehicle, driver, and violation information from the inspection facility just before closing. Out-of-serviced vehicles leaving the closed sites within one or two hours of its closure should be stopped and repair verifications made; and (3) Non-out-of-service violations may be reinspected at the request of the vehicle's operator. Such request is made at the inspection site. When the defects have been corrected, a CVSA reciprocity decal will be issued. If the reinspection is made after the vehicle leaves the inspection site, a complete inspection must be made before a decal can be issued. States engaged in at-terminal audits should incorporate a comparison of pertinent inspection documents to the carrier's maintenance records and every effort should be made to inspect vehicles which were previously inspected on the road and had reported defects.[140]

Paul Henry, concluded:

> Adherence to the above-recommended policies will deter violation of out-of-service notices by drivers and enhance the regulatory community's ability to control this difficult element.[141]

Maj. Stephen Anders of the Kentucky MCSAP maintained that the use of technology, together with other enforcement strategies, could help address the problem of drivers violating the out-of-service order.[142]

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[139] U.S. Congress. Senate. Committee on Commerce, Science, and Transportation. Motor Carrier Safety Assistance Program (MCSAP): Options Intended to Improve A Generally Successful and Cooperative Federal/State Partnership Promoting Truck and Bus Safety. S. Print 100-109. 100th Cong. 2nd Sess., Washington, U.S. Govt. Print. Off., 1988. 72 p.

[140] Henry, Paul. Prepared remarks to Symposium on Effective Highway Accident Countermeasures. 1990.

[141] Ibid.

In P.L. 101-500 Congress mandated that the Secretary of Transportation issue regulations establishing procedures to ensure the proper and timely correction of commercial motor vehicle safety violations noted during MCSAP inspections. For example, Congress required that a nationwide system for random reinspection be established for out-of-service violations and that a certified form be returned to the State originally conducting the inspection indicating that all necessary repairs had indeed been performed.

To further reduce the likelihood of a driver violating on out-of-service citation, Congress might also consider specifying various penalties for drivers that violate an out-of-service citation. For example, Congress might specify that a driver convicted for the first time of violating an out-of-service citation shall be disqualified from driving a commercial motor vehicle for a period of one year and be penalized, say, $1,000, and then, for a driver convicted for a second time, disqualified permanently thereafter in addition to another $1,000 penalty.[143] Also, Congress might specify that any carrier that forces a driver to violate an out-of-service citation shall be subject to a civil penalty, say, of up to $20,000. (The size of these penalties falls within the parameters of other Federal safety laws.)

Some might consider these penalty sanctions too severe. However, these sanctions would be reserved for situations in which only critical safety violations were not corrected by the driver before returning to the highways. It may be difficult, however, to obtain sufficient evidence to convict carriers of such a violation.

AN IMPROVED HAZARDOUS MATERIALS TRANSPORTATION EFFORT UNDER MCSAP [144]

About 10 percent of the inspections conducted by MCSAP officers involve a truck transporting hazardous materials (hazmat). During FY 1989, FHWA reports that close to 113,000 "hazmat"-laden vehicles were inspected under MCSAP and that 27 percent of these were placed out-of-service for alleged serious violations. As a result of MCSAP, there has been a substantial increase in the extent of the enforcement community's contact with the on- highway component of the hazardous materials transportation industry.

There are three major issues of concern regarding the hazardous materials inspections conducted under MCSAP:

—the need for more specialized training of inspectors dealing with hazardous materials;

—the need for entry into shipper facilities that are tendering hazardous materials for highway transportation and the subsequent audit of these operations; and

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[142] Personal communication with Major Anders, 1990.

[143] During 1990 CVSA petitioned FHWA for a rulemaking that would disqualify a driver for the same period of time for violating an out-of-service order.

[144] This section is based primarily on discussions with employees of the National Transportation Safety Board, the Research and Special Programs Administration, the Arizona Department of Public Safety, and the Missouri Division of Transportation, as well as a seminar on hazardous materials enforcement at a conference sponsored by the Transportation Research Board entitled "State and Local Issues in Transportation of Hazardous Materials: Toward a National Strategy," held May 14, 1990, in St. Louis, MO.

—the need to improve the quality of hazardous materials inspections paid for with MCSAP funds.

Training of MCSAP Inspectors and Hazardous Materials Transportation

The Federal Hazardous Materials Transportation Regulations are extremely complex and difficult to understand. The typical MCSAP inspector does not have a detailed understanding of these regulations. The enforcement officer simply does the best that he can given the limited amount of training received. The more hazardous materials training an individual receives, the more likely an inspector might be inclined to conduct a thorough hazardous materials inspection.

There are indeed wide differences in the number and quality of hazardous materials inspections conducted by the MCSAP States. A few States conduct most of the hazardous materials inspections paid for with MCSAP funds; many States conduct relatively few hazardous materials inspections under MCSAP. Some inspectors may avoid thoroughly examining cargo tanks because of a lack of knowledge in this area. There also is a reported lack of confidence displayed by some safety inspectors in the hazardous materials regulatory area.[145]

State officials consistently point to the need for more training of hazardous materials inspectors participating in MCSAP. Probably, the most effective way to improve the hazardous materials component of MCSAP would be to increase funds available for specialized training for a select group of motivated inspectors. As discussed throughout this report, there are, however, many other competing demands on MCSAP funds.

It is not suggested that all MCSAP inspectors should receive specialized, in-depth training in hazardous materials enforcement beyond the training required by the CVSA to be certified as a Level I inspector with its endorsement to do hazmat inspections. This added training effort could be an inefficient use of funds and has proven to be so with unmotivated road enforcement officers.

Right of Entry Into Shipping Operations

STAA, which established MCSAP, states that MCSAP States should have the "right of entry and inspection sufficient to enforce such rules, regulations, standards and orders."[146] Did Congress mean the right of entry into hazardous materials carriers, hazardous materials shippers or both? In 49 CFR 350.11 (f) FHWA interpreted this provision to mean that State laws shall provide for right of entry and inspection by State personnel sufficient to enforce the FMCSR and the HMTR or compatible State rules. In practice, FHWA requires States to have the legal right of entry into facilities and operations they plan to inspect as set forth in their SEPs. The key point is that there are still some State enforcement personnel that do not have legal authorization from their legislatures to enter a hazardous materials shipping operation. This lack of inspection authority is a problem because many of the violations of the hazardous materials transportation regulations start at the shipper's plant or other points of origin such as a freight forwarder. (Improper blocking and bracing operations, a primary cause of leaking hazardous materials packages, can easily be observed at shipping facilities.) If MCSAP enforcement personnel either cannot go into the shipping facility or cannot bring an enforcement action against a shipper, the effectiveness of the hazardous materials component of MCSAP is diminished.

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[145] South Carolina: State Enforcement Plan. FY 1990.

[146] P.L. 97-424

As part of the reauthorization legislation, Congress may wish to consider whether to specify that it expects MCSAP to be a comprehensive program and to include inspections of hazmat shipping facilities. There are several drawbacks with this option. The most significant drawback is that strict adherence to such a requirement could eventually preclude some States from participating in MCSAP. It may prove to be a mistake to refuse to provide MCSAP funds simply because a State does not conduct audits of shippers, but only conducts hazardous materials inspections of carriers. It seems much more effective and logical to encourage the States to develop the legal authority and needed expertise to conduct such shipper audits. Progress towards successfully accomplishing such an objective could take five or more years. Some State officials, however, may not want to get involved in auditing shipping operations. Some believe that such audits are too involved for MCSAP and that the required funds could be more effectively used in highway inspections.

An alternative to requiring MCSAP officers to be able to enter shipper facilities would be to encourage more States to conduct additional audits of carrier terminals and major break-bulk facilities. (At these sites, large numbers of packages and frequent loading and unloading operations can be observed.)

Quality of Hazardous Materials Inspections

Many of the MCSAP-funded hazardous materials inspections are not thorough and complete, because the inspector does not break the seal on the back of the truck to check the load for compliance with various HMT regulations, including compatibility of storage and packaging regulations, and blocking and bracing requirements. It is simply not adequate to examine shipping papers and placards of a vehicle transporting hazardous materials and to call such an inspection a "hazardous materials inspection." But, MCSAP program managers frequently make such reports to the FHWA. (It is not surprising that the vast majority of out-of-service hazardous materials violations identified during MCSAP inspections pertain to improper shipping papers or improper placarding.)

Currently, there is no Federal or CVSA inspection requirement that the seal on every placarded truck be broken to examine the load. In order to conduct a complete hazardous materials inspection, however, it is essential to open up the back of the truck and examine how the hazardous materials are packaged and blocked and braced within the truck. Some of the State inspectors do break seals; others break seals but only under strictly specified constraints such as when hazardous materials are leaking or for probable cause.

This report does not suggest that every seal on every placarded truck be broken and the load of the truck be examined. Such a requirement would be extremely time consuming and prove to be a mistake. However, if a more effective hazardous materials effort in MCSAP is desired, more seals will need to be broken to allow more packaged loads to be examined. This approach is especially important in those situations when the inspector maintains that because of the nature of the cargo or mix of load or because of other circumstances, that further investigation is necessary.

Such comprehensive hazardous materials inspections raise several problems. These include:

1. legal problems—some States' laws or enforcement policies require officers to have probable cause before they may break a seal;
2. the need for training—inspectors require much training and practice to understand the complicated DOT hazardous materials regulations and to conduct safe, comprehensive, and correct hazmat inspections;
3. liability issues—procedures must be developed to ensure that the inspectors can defend themselves against fraudulent claims that they stole materials from opened trailers after the seals were broken; some States already have developed procedures to deal with this situation; and
4. time concerns—longer delays would be encountered as a result of more comprehensive hazardous materials inspections.

The key point is that if MCSAP were to reduce the frequency and severity of highway accidents involving hazardous materials, more MCSAP inspectors would be needed to conduct more comprehensive hazardous materials inspections than are being conducted today.

Future of MCSAP and Hazardous Materials Transportation Safety

If the contribution of MCSAP to hazardous materials transportation safety is to increase, then additional funds for training in the hazmat regulations and inspection procedures will be useful. As part of MCSAP's reauthorization legislation, Congress might consider providing a total of up to $2 million of additional funds for this purpose to be allocated during FY 1992 through FY 1994. These funds could be made available for additional and in-depth hazardous materials-enforcement training for a select group of MCSAP officers in each State. These officers would specialize in conducting roadside inspections of trucks transporting hazardous materials, conducting audits of hazardous materials shipping facilities and large break-bulk terminals, serving as consultants to other MCSAP officers in that State on technical questions involving the hazardous materials regulations and inspection process, and investigating accidents involving hazardous materials.

Successful implementation of this option would likely:

—raise the quality of hazardous materials inspections conducted throughout the MCSAP program;
—provide a source of technical expertise on hazardous materials issues in each of the States; and
—increase contacts with shippers or terminal operations.

Several States, such as Illinois, have trained MCSAP officers who are experts in the hazardous materials transportation regulations. This specialization reportedly appears to have been successful.

The major disadvantages of this option are that:

—if these funds were earmarked for this purpose, it would reduce the discretionary authority or flexibility of State and Federal program managers; and

—these funds might be more effectively used to conduct more motor carrier inspections or for other MCSAP purposes.

An alternative to the earmarking approach outlined above is to increase the amount of MCSAP funds available for allocation to the States and to let FHWA and the States work out the priorities for use of these funds. Although such an option promotes flexibility, there is no assurance that the funds could promote improved and more frequent hazardous materials inspections or shipper audits under MCSAP.

OPPORTUNITIES TO IMPROVE THE COORDINATION OF NHTSA-FUNDED PROGRAMS AND MCSAP

Primarily during the last year, FHWA and NHTSA officials have made a definitive attempt to increase the cooperation and coordination of their efforts regarding commercial motor vehicle safety. These agencies have established a working group to improve coordination. But, much more could be done. For example, NHTSA efforts in public or driver education could be better coordinated with MCSAP efforts in this area. To promote coordination between NHTSA-funded efforts and MCSAP, the Governors' Highway Safety Representatives could be provided with a copy of the completed State Enforcement Plans for his/her State. If MCSAP funds could be used for traffic enforcement targeted at commercial motor vehicles, NHTSA could assist MCSAP officers in a variety of ways, such as with operational guidebooks and additional training assistance. (For additional information, see the section of this report on Traffic Enforcement.)

Some of the MCSAP officers interviewed for this report pointed out that truck safety programs did not receive adequate attention from NHTSA. They thought that NHTSA was not sufficiently keyed into the problems of truck safety and that much of NHTSA's 402 funds were allocated to local enforcement agencies or not to commercial enforcement officers. Some MCSAP officers reported that they were unable to convince their Governor's Highway Safety Representatives to ask NHTSA to pay for portable breath testers as part of a highway safety project.

Robert Hirsch of the National Private Truck Council stated that there were opportunities to coordinate better MCSAP with other Federal safety programs, especially the 402 funds administered by NHTSA. He thought that such an arrangement would improve both the effectiveness and efficiency of Federal safety dollars.[147]

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[147] Personal communication with Robert Hirsch of the National Private Truck Council, 1989.

MCSAP AND BUS SAFETY

Douglas R. Turner, chairman, American Bus Association's (ABA) Safety Committee, stated that although ABA strongly supports MCSAP, this association has some concerns about the circumstances under which some bus inspections are occurring. ABA would prefer that bus inspections to occur at terminals, rest areas, special bus inspection sites, and other locations that minimize the safety risks and inconvenience to its passengers. ABA does not favor random bus inspections along highways at potentially dangerous locations.

Although ABA recognizes the need for traffic stops based on probable cause, it would prefer that when buses are stopped that they be escorted to safer locations where safety is not a pressing concern. ABA would like FHWA to issue definitive guidelines detailing when and under what circumstances bus inspections, funded with MCSAP dollars, should occur. Such guidelines could be developed in cooperation with the ABA and CVSA.[148]

FHWA maintains that unannounced inspections at the roadside, terminals, parks, etc., are a key element in the motor carrier safety program. FHWA allows MCSAP States flexibility in determining how and where their officers conduct vehicle inspections. FHWA states:

> While some States inspect buses at terminals or parking lots, other States have very active bus inspection programs where the buses are inspected with the passengers on board. These States have found this to be effective because (1) they can check both the driver and the bus; (2) a large number of buses can be inspected on a high traffic bus route where at a terminal they would have fewer buses to inspect and the drivers may not be available; (3) they may not have authority to issue citations unless the bus is on the highway; and (4) some small companies may not have a fixed terminal and it is difficult to find the buses for an unannounced inspection. These States may also use pits or portable ramps to enable a full Level I inspection of the buses.[149]

CONSTRUCTION OF ADEQUATE MCSAP INSPECTION FACILITIES

A recommendation of the Symposium on Effective Highway Safety Countermeasures, which was attended by senior industry, State, and Federal Government staff who met to discuss specific measures that could be taken in the short-term to improve highway safety, was to increase the number of safe, all-weather commercial vehicle inspection facilities.[150] In both hot and cold climates, there is a recognized need for additional facilities of this type. As Paul Henry, then president of CVSA, stated before the symposium:

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[148] Personal communication with Douglas R. Turner, speaking on behalf of ABA, 1990.

[149] Written responses to questions posed by Senator Lautenberg as part of a hearing before the Subcommittee on Transportation of the Senate Appropriations Committee, 1990.

[150] Symposium on Effective Highway Accident Countermeasures. Sponsored by FHWA in cooperation with NHTSA. Washington, D.C. 1990.

> To facilitate year-round Level I inspection work in jurisdictions subject to weather extremes, we believe there exists a need for well-constructed, covered, drive-through inspection buildings. The need for these inspection facilities exists. For seven or more years we have invested significant funds in our Nation's commercial vehicle safety program. Now is the time to recognize both the need and the long-term investment in our Nation's commercial vehicle inspection program. Criteria should be established that assures the location of these facilities is sound and a uniform approach is used by each State in citing its inspection facility locations. A generic set of construction plans would help establish uniform facilities and reduce associated costs. To make possible year-round level of inspections, the identification of a Federal fund and vehicle to help offset State construction costs for inspection facilities is necessary.

The key issue, however, is identifying the source of funding for these facilities. The option of using Highway Trust Funds to address this concern is likely to be considered as part of the debate over the Highway Reauthorization legislation during 1991. This issue has not been addressed in this report.

A CLOSING THOUGHT ABOUT COSTS AND BENEFITS

Estimates of the costs of highway accidents vary considerably and no real economic value can be put on the loss of life and on human pain and suffering. Nevertheless, one could conservatively estimate that the financial loss of roughly $75 to $100 billion or more annually in wages, medical expenses, property damages and other economic losses are due to highway accidents occurring in our Nation.[151] Assuming that 10 percent of this loss is due to accidents involving commercial motor vehicles, the loss relevant to this report totals $7.5 billion to $10 billion yearly.[152] These costs are roughly more than two orders of magnitude greater than the $13 million per year minimum amount of additional funds that would be needed to begin to implement all but one of the options outlined in this report.[153] If MCSAP were to reduce commercial vehicle-involved accident costs by any measurable amount over .2 percent, the costs of all but one of these options would be less than the reductions in expected economic losses resulting from these accidents.

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[151] In recent publications, NHTSA has used the $75 billion figure, which some judge to be conservative.

[152] The 10 percent is judged to be a conservative estimate of economic loss and is based partly on discussion with various safety experts.

[153] A Federal program to supplement existing State weight enforcement efforts is roughly estimated to cost at least $15 million per year. This is the option that is not considered in this analysis.

RELATIONSHIP OF THE OPTIONS PRESENTED TO THE DOT'S NATIONAL TRANSPORTATION POLICY

In February 1990, the DOT released its National Transportation Policy. It is interesting to note that the 21 options presented in this report are generally consistent and compatible with many, if not all, of these statements that pertain to safety in DOT's National Transportation policy.

Some of the key recommendations of DOT's National Transportation Policy that have direct bearing on the options presented in this report are presented below:

—Conduct a coordinated national campaign to increase public awareness of traffic safety issues, promote improved driver training, achieve more effective driver licensing and driver records, build support for traffic safety laws, and change unsafe driving behavior, (see, for example, options Nos. 1, 2, 3, and 5 of this report);

—Target Federal financial support and technical assistance to promoting more effective enforcement of laws and regulations governing speed limits, motor carrier safety, drunk and drugged driving, and use of safety belts (see, for example, options Nos. 2, 3, 4, and 5 of this report);

—Work with States and private industry to improve motor carrier safety, beginning with prompt implementation of the Commercial Drivers License program (option No. 1);

—Improve reporting on accidents, data on exposure to risk, and information on trends and patterns to identify potential safety problems and cause; (options No. 9 and No. 13);

—Continue efforts to have elected officials, law enforcement organizations, and the private sector devote more resources to safety, including public awareness, enforcement, and training of public and private sector employees involved in maintaining safety (option No. 6);

—Devote maximum effort to eliminating use of alcohol and drugs in transportation, through education and public awareness, operator screening and testing, and strict enforcement of regulations, in conjunction with effective rehabilitation programs (options No. 4 and No. 5);

—Develop effective hazardous materials regulation, enforcement, and preparedness strategies to deal with evolving materials and technologies and identified safety risks in all modes (option No. 8);

—Extend Federal hazardous materials regulations to cover all intrastate movements of hazardous materials by commercial motor carrier (option No. 8); and

—Expand the scope of training requirements for handling and dealing with hazardous materials in the transportation system, to include not only regulatory compliance but also hazard awareness, avoidance, and mitigation (option No. 8).[154]

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[154] U.S. DOT. Moving America: New Direction, New Opportunities. Feb. 1990. various pages.

APPENDIX I. FACTS ON MCSAP *

Motor Carrier Safety Assistance Program (MCSAP)

Program Activity Overview - Fiscal Year 1989

Federal Highway Administration
Office of Motor Carrier Field Operations
State Programs Division

The MCSAP is a Federally-financed program which provides grants to States and eligible Territories for carrying out motor carrier safety enforcement activities. In Fiscal Year 1989 (October 1, 1988 to September 30, 1989), the MCSAP supported 45 States and 3 Territories (American Samoa, Guam, and Puerto Rico) in the conduct of commercial vehicle roadside driver/vehicle inspections and/or carrier reviews. In addition, 2 States (Alaska and Wyoming) were in the MCSAP development phase which provides for preparation and adoption of required regulations prior to implementation of actual inspection activites. Three States (Florida, South Dakota, and Texas) did not participate in the MCSAP in FY 1989.

A total of over 1.3 million inspections were conducted by MCSAP participants during the year. Over 474,000 vehicles and 91,000 drivers were placed out-of-service for serious safety violations as a result of these inspections. In addition, over 10,000 carrier compliance reviews were conducted by MCSAP personnel in FY 1989. The number of inspections, out-of-service actions, and carrier reviews has grown dramatically since the first year of MCSAP activity in 1984:

Fiscal Year	Hazardous Materials Inspections	Non-Haz. Materials Inspections	Bus Insp.	Total Insp.	Out-of-Service Vehicles	Out-of-Service Drivers	Carrier Reviews
1984	16,648	142,082	564	159,294	49,604	9,273	114
1985	38,819	332,021	4,045	374,885	107,583	23,557	1,236
1986	58,906	488,854	11,540	559,300	218,144	43,177	1,652
1987	96,960	890,361	16,473	1,003,794	370,088	57,654	2,453
1988	117,354	1,110,041	26,681	1,254,076	470,836	83,149	4,472
1989	112,860	1,165,751	23,842	1,302,453	474,132	91,218	10,233
	441,547	4,129,110	83,145	4,653,802	1,690,387	308,028	20,160

This overview of the FY 1989 MCSAP program provides national overview information and State-by-State tables of activity and key results of inspection activity such as out-of-service actions and types of violations found. On the following page is a discussion of data sources and limitations. A brief description is then given for each table and graph, followed by the tables and graphs themselves.

*** Information derived from DOT document.**

Data Sources / Limitations

The information which follows was developed directly from the MCSAP Quarterly Reports submitted by participating States. In most cases these reports are prepared directly from the SAFETYNET system in place at the State. In other cases; such as when a State is having difficulty inputting all inspection information into SAFETYNET or for other reasons; the data may be incomplete. For instance, in a number of cases vehicle and driver violation type breakdowns are not fully reported, and therefore cannot be included in the frequency distribution calculations.

It is also believed that the States are not yet fully uniform in terms of which inspections are actually included as part of the MCSAP Quarterly Report. In some States, only MCSAP-funded inspections are being reported; while in others all MCSAP-type inspections are reported, which includes those conducted under the "base level of effort" and any additional State-only funded inspections. In some States, non-MCSAP agencies are conducting inspections (especially specialized inspections such as those which focus on buses), which are not reported. Efforts are underway to address these variations in the future.

Description of Tables and Graphs

The data on inspections, review activity, out-of-service rates for all of the following tables and graphs have been separated into FHWA regions to show geographical and regional information.

Table 1 - This is the overall summary of number of inspections by type, number of drivers and vehicles placed out-of-service, and reviews conducted by MCSAP agencies.

Tables 2 and 3 - The inspection data in these tables are broken down by Commercial Vehicle Safety Alliance "Level of Inspection." Briefly, these are:

- Level 1 - Full "North American Standard" Inspection
- Level 2 - Walk-Around Driver/ Vehicle Inspection
- Level 3 - Driver-Only Inspection
- Level 4 - Special Inspection
- Bus - All inspections conducted on buses

Table 2 shows the number of inspections by level, the percent of hazardous-materials-related inspection for each level, and the percent of level one plus bus inspections accomplished for each State. Table 3 shows the corresponding out-of-service rates for both vehicles and drivers.

Graphs - All of the graphs provided have been developed directly from the data tables. Included are displays of both State-by-State data and national frequencies.

Table 1

MCSAP Quarterly Report Information System
Overall Summary of State Activity and Percent Out-of-Service for Fiscal Year 1989

State	HM Insp.	Non-HM Insp.	Bus Insp.	Total Insp.	Vehs. OOS	% OOS	Drivers OOS	% OOS	Carrier Reviews SR-1s	CR-1s	SMAs	Total	# HM-Related
CT	1,807	15,034	0	16,841	10,151	60.3	680	4.0	641	0	0	641	0
MA	1,927	18,436	67	20,430	5,127	25.1	1,185	5.8	479	0	0	479	43
ME	381	6,749	47	7,177	3,792	52.8	642	8.9	24	12	0	36	18
NH	701	8,007	1,571	10,279	2,907	28.3	1,558	15.2	65	0	0	65	9
NJ	3,205	26,603	6,340	36,148	11,429	31.6	3,958	10.9	103	0	0	103	0
NY	5,677	46,023	0	51,700	24,546	47.5	1,551	3.0	0	0	0	0	0
PR	531	2,587	10	3,128	1,150	36.8	99	3.2	0	0	0	0	0
RI	372	5,010	60	5,442	2,461	45.2	629	11.6	0	0	0	0	0
VT	410	418	0	828	186	22.5	10	1.2	0	0	0	0	0
DE	407	3,572	11	3,990	1,715	43.0	565	14.2	0	0	0	0	0
MD	1,400	22,244	752	24,396	11,061	45.3	1,830	7.5	186	0	0	186	79
PA	2,824	45,626	332	48,782	18,766	38.5	2,921	6.0	0	0	0	0	0
VA	1,177	13,214	254	14,645	5,685	38.8	1,637	11.2	0	0	0	0	0
WV	1,000	21,892	948	23,840	4,590	19.3	1,396	5.9	548	0	0	548	22
AL	1,514	17,673	0	19,187	7,385	38.5	1,924	10.0	44	0	0	44	2
GA	6,705	25,404	188	32,297	15,232	47.2	5,230	16.2	6	0	0	6	0
KY	4,793	73,445	3	78,241	29,210	37.3	1,142	1.5	0	0	0	0	0
MS	3,369	9,487	8	12,864	5,985	46.5	1,026	7.9	0	0	0	0	0
NC	3,772	53,644	521	57,937	18,957	32.7	2,496	4.3	952	0	0	952	0
SC	1,550	15,811	240	17,601	7,687	43.7	1,156	6.6	0	0	0	0	0
TN	8,742	112,175	106	121,023	55,380	45.8	10,452	8.6	97	0	222	319	48
IL	20,608	31,700	1,102	53,410	11,187	20.9	1,526	2.9	28	0	0	28	13
IN	2,243	38,889	266	41,398	17,651	42.6	2,010	4.9	216	0	0	216	64
MI	3,218	49,220	5,426	57,864	15,977	27.6	1,549	2.7	19	0	238	257	29
MN	1,196	23,952	278	25,426	8,336	32.8	403	1.6	835	0	24	859	71
OH	7,757	92,595	403	100,755	27,607	27.4	7,315	7.3	857	0	157	1,014	0
WI	702	18,077	53	18,832	7,096	37.7	2,901	15.4	520	0	0	520	0
AR	2,077	24,910	7	26,994	8,903	33.0	2,443	9.1	0	0	0	0	0
LA	3,794	22,143	223	26,160	9,620	36.8	2,862	10.9	0	0	0	0	0
NM	193	4,377	0	4,570	1,700	37.2	282	6.2	0	0	0	0	0
OK	1,000	7,418	3	8,421	2,107	25.0	868	10.3	0	0	0	0	0
IA	1,080	30,308	2	31,390	9,717	31.0	2,153	6.9	0	0	0	0	0
KS	983	11,888	1	12,872	6,286	48.8	1,105	8.6	206	0	361	567	77
MO	3,004	53,488	145	56,637	27,455	48.5	7,023	12.4	210	28	400	638	84
NE	634	16,462	27	17,123	5,092	29.7	2,103	12.3	229	0	0	229	5
CO	2,775	38,787	106	41,668	15,209	36.5	3,902	9.4	184	0	0	184	24
MT	615	14,296	44	14,955	2,510	16.8	1,554	10.4	227	0	7	234	12
ND	569	5,584	0	6,153	1,694	27.5	497	8.1	63	0	0	63	5
UT	664	10,023	2	10,689	4,888	45.7	695	6.5	420	105	0	525	91
AS	59	703	977	1,739	584	33.6	81	4.7	0	0	0	0	0
AZ	208	10,490	15	10,713	4,461	41.6	2,404	22.4	0	0	110	110	4
CA	2,610	28,643	830	32,083	14,189	44.2	1,573	4.9	483	0	25	508	114
GU	149	3,054	295	3,498	814	23.3	82	2.3	0	0	0	0	0
HI	156	3,532	1,236	4,924	1,500	30.5	80	1.6	0	0	215	215	13
NV	634	5,948	459	7,041	2,998	42.6	500	7.1	228	0	0	228	29
ID	982	14,474	36	15,492	2,202	14.2	1,015	6.6	46	1	0	47	4
OR	1,194	15,574	111	16,879	6,569	38.9	792	4.7	0	0	0	0	0
WA	1,492	46,162	337	47,991	14,378	30.0	1,413	2.9	0	0	412	412	0
	112,860	1,165,751	23,842	1,302,453	474,132	36.4	91,218	7.0	7,916	146	2,171	10,233	860

Table 2

MCSAP Quarterly Report Information System
Summary of State Activity by Inspection Type for Fiscal Year 1989

State	Level 1 Insp		Level 2 Insp		Level 3 Insp		Level 4 Insp		Bus		Percent Bus +
	Total	% HM	Total	% HM	Total	% HM	Total	% HM	Insp	Total	Level 1
CT	16,808	10.8	30	0.0	3	0.0	0	0.0	0	16,841	99.8
MA	14,669	9.9	4,266	9.7	135	6.7	1,293	4.5	67	20,430	72.1
ME	6,947	5.4	181	2.8	2	0.0	0	0.0	47	7,177	97.5
NH	6,699	7.2	1,162	8.3	847	14.4	0	0.0	1,571	10,279	80.5
NJ	22,311	12.4	7,030	5.4	465	12.7	2	50.0	6,340	36,148	79.3
NY	51,700	11.0	0	0.0	0	0.0	0	0.0	0	51,700	100.0
PR	1,017	18.5	871	21.5	1,229	12.6	1	0.0	10	3,128	32.8
RI	4,213	7.2	972	5.1	90	13.3	107	7.5	60	5,442	78.5
VT	729	50.9	98	38.8	1	0.0	0	0.0	0	828	88.0
DE	2,868	10.8	929	9.9	0	0.0	182	2.2	11	3,990	72.2
MD	20,189	5.8	2,823	6.1	523	7.1	109	13.8	752	24,396	85.8
PA	33,185	4.9	10,618	9.6	4,645	4.2	2	0.0	332	48,782	68.7
VA	10,027	8.8	4,351	6.8	13	7.7	0	0.0	254	14,645	70.2
WV	9,296	4.9	5,339	4.8	8,257	3.5	0	0.0	948	23,840	43.0
AL	9,910	10.2	8,328	5.5	948	5.3	1	0.0	0	19,187	51.7
GA	32,109	20.9	0	0.0	0	0.0	0	0.0	188	32,297	100.0
KY	77,745	6.1	493	3.7	0	0.0	0	0.0	3	78,241	99.4
MS	10,603	27.1	2,007	21.8	245	23.3	1	0.0	8	12,864	82.5
NC	57,416	6.6	0	0.0	0	0.0	0	0.0	521	57,937	100.0
SC	13,831	9.0	1,744	9.1	943	7.1	843	9.1	240	17,601	79.9
TN	120,917	7.2	0	0.0	0	0.0	0	0.0	106	121,023	100.0
IL	52,308	39.4	0	0.0	0	0.0	0	0.0	1,102	53,410	100.0
IN	39,569	4.7	1,278	24.3	257	33.1	28	0.0	266	41,398	96.2
MI	51,255	6.3	845	0.0	338	0.0	0	0.0	5,426	57,864	98.0
MN	25,148	4.8	0	0.0	0	0.0	0	0.0	278	25,426	100.0
OH	100,352	7.7	0	0.0	0	0.0	0	0.0	403	100,755	100.0
WI	13,936	3.9	3,881	3.4	962	2.1	0	0.0	53	18,832	74.3
AR	13,771	7.9	10,785	8.0	2,390	5.0	41	12.2	7	26,994	51.0
LA	17,107	13.9	8,365	15.6	463	22.0	2	0.0	223	26,160	66.2
NM	2,819	5.5	1,465	2.2	286	2.1	0	0.0	0	4,570	61.7
OK	1,935	12.5	5,791	12.6	692	4.5	0	0.0	3	8,421	23.0
IA	19,444	3.6	7,574	3.7	4,370	2.4	0	0.0	2	31,390	62.0
KS	12,871	7.6	0	0.0	0	0.0	0	0.0	1	12,872	100.0
MO	45,473	4.8	7,586	6.4	2,006	2.9	1,427	17.7	145	56,637	80.5
NE	9,912	4.5	3,291	5.5	3,648	0.0	245	4.1	27	17,123	58.0
CO	33,301	6.8	760	12.1	7,431	5.1	70	62.9	106	41,668	80.2
MT	4,560	5.1	5,924	4.0	3,825	2.7	602	7.1	44	14,955	30.8
ND	3,621	10.1	748	10.7	1,773	6.8	11	9.1	0	6,153	58.8
UT	10,366	6.4	3	0.0	318	0.0	0	0.0	2	10,689	97.0
AS	738	7.9	0	0.0	0	0.0	24	4.2	977	1,739	98.6
AZ	6,416	1.7	4,210	2.3	63	1.6	9	11.1	15	10,713	60.0
CA	31,253	8.4	0	0.0	0	0.0	0	0.0	830	32,083	100.0
GU	3,202	4.6	0	0.0	1	0.0	0	0.0	295	3,498	100.0
HI	3,688	4.2	0	0.0	0	0.0	0	0.0	1,236	4,924	100.0
NV	4,772	8.9	1,476	13.6	333	2.4	1	0.0	459	7,041	74.3
ID	8,912	9.3	1	0.0	6,473	2.3	70	7.1	36	15,492	57.8
OR	15,459	7.6	886	1.9	423	0.2	0	0.0	111	16,879	92.2
WA	25,397	5.3	22,257	0.6	0	0.0	0	0.0	337	47,991	53.6
	1,080,774	9.3	138,368	6.7	54,398	4.3	5,071	10.4	23,842	1,302,453	84.8

Table 3

MCSAP Quarterly Report Information System
Summary of State Out-of-Service Rates for Fiscal Year 1989

	Level 1	%OOS	Level 2	%OOS	Level 3	%OOS	Level 4	%OOS	Bus	%OOS	Overall	OOS Rate
State	Veh.	Driver	Veh.	Driver	Veh.	Driver	Veh.	Driver	Veh.	Driver	Veh.	Driver
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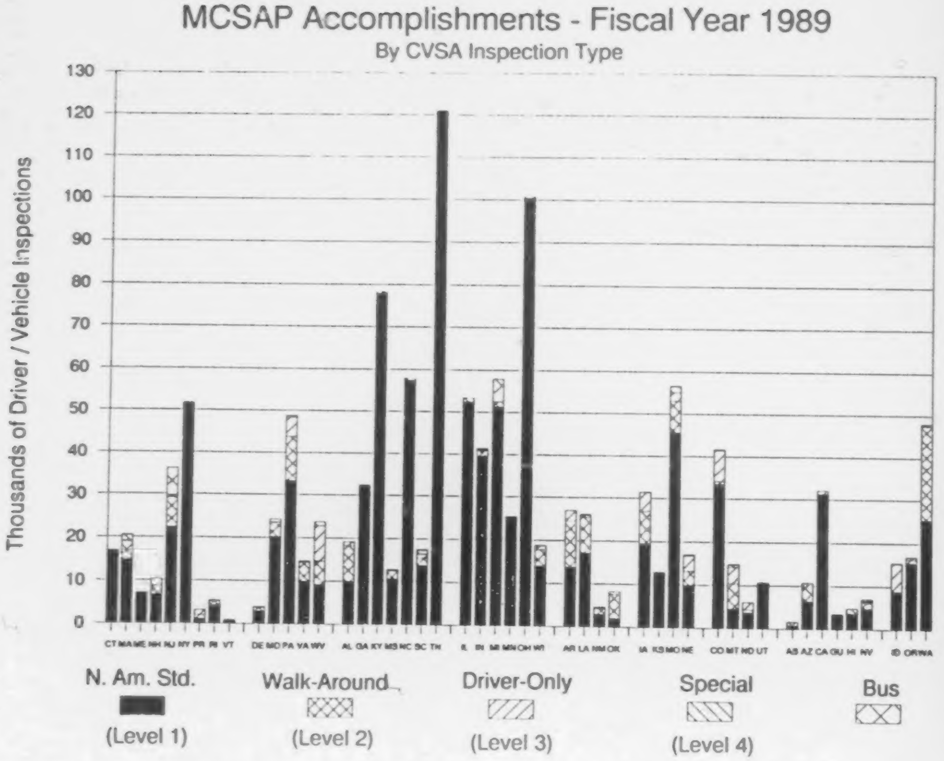
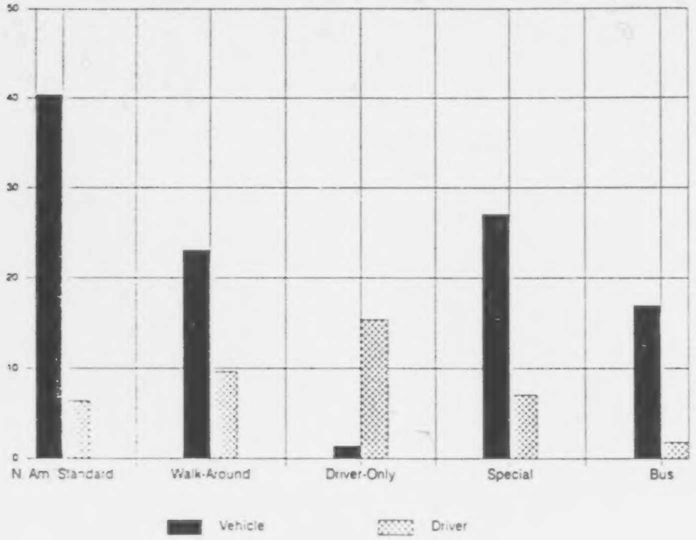
CT	60.3	4.0	63.3	3.3	0.0	100.0	0.0	0.0	0.0	0.0	60.3	4.0
MA	29.0	5.7	18.8	5.8	3.0	17.0	5.0	5.8	0.0	0.0	25.1	5.8
ME	53.8	8.5	23.2	22.7	0.0	100.0	0.0	0.0	27.7	17.0	52.8	8.9
NH	36.2	19.4	16.6	10.3	15.9	13.8	0.0	0.0	9.9	1.2	28.3	15.2
NJ	39.9	11.7	24.8	15.3	12.7	29.2	0.0	0.0	11.5	2.1	31.6	10.9
NY	47.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5	3.0
PR	67.7	2.9	51.9	4.5	0.3	2.4	100.0	0.0	50.0	10.0	36.8	3.2
RI	52.0	11.3	23.8	10.7	22.2	10.0	18.7	32.7	1.7	6.7	45.2	11.6
VT	24.4	1.4	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5	1.2
DE	47.9	14.2	30.8	12.6	0.0	0.0	28.6	22.5	18.2	9.1	43.0	14.2
MD	50.3	7.0	29.4	10.5	0.0	17.4	33.9	13.8	6.5	1.7	45.3	10.2
PA	44.9	5.3	35.9	5.5	0.0	11.9	0.0	0.0	12.3	3.3	38.5	6.0
VA	49.7	10.6	15.6	13.2	0.0	30.8	0.0	0.0	10.6	0.0	38.8	11.2
WV	39.2	3.8	14.2	6.6	0.0	8.4	0.0	0.0	19.2	0.0	19.3	5.9
AL	46.2	10.4	33.4	9.5	3.4	10.7	0.0	0.0	0.0	0.0	38.5	10.0
GA	47.4	16.2	0.0	0.0	0.0	0.0	0.0	0.0	13.8	10.6	47.2	16.2
KY	37.5	1.5	11.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	37.3	1.5
MS	52.6	8.2	19.7	6.5	2.9	10.6	0.0	0.0	37.5	0.0	46.5	8.0
NC	32.9	4.3	0.0	0.0	0.0	0.0	0.0	0.0	9.4	0.0	32.7	4.3
SC	48.5	6.4	30.3	7.4	2.8	10.8	46.7	5.2	15.0	0.0	43.7	6.6
TN	45.8	8.6	0.0	0.0	0.0	0.0	0.0	0.0	11.3	0.0	45.8	8.6
IL	21.1	2.9	0.0	0.0	0.0	0.0	0.0	0.0	11.9	0.4	20.9	2.9
IN	43.4	4.8	26.9	7.4	7.0	6.2	50.0	0.0	32.7	4.9	42.6	4.9
MI	28.3	3.0	0.0	0.0	0.0	0.0	0.0	0.0	27.2	0.0	27.6	2.7
MN	33.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.4	32.8	1.6
OH	27.4	7.3	0.0	0.0	0.0	0.0	0.0	0.0	15.4	2.2	27.4	7.3
WI	41.8	14.7	32.7	13.8	0.0	33.1	0.0	0.0	9.4	0.0	37.7	15.4
AR	43.8	7.9	26.0	9.6	2.1	12.9	34.1	12.2	0.0	0.0	33.0	9.1
LA	44.9	11.2	22.6	10.0	5.0	19.0	0.0	0.0	12.6	8.5	36.8	10.9
NM	44.8	2.3	29.8	4.2	0.0	54.5	0.0	0.0	0.0	0.0	37.2	6.2
OK	39.4	7.1	23.0	10.2	1.4	19.9	0.0	0.0	0.0	33.3	25.0	10.3
IA	40.5	5.1	23.6	7.5	1.2	13.5	0.0	0.0	0.0	0.0	31.0	6.9
KS	48.8	8.6	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	48.8	8.6
MO	52.6	8.9	38.7	23.3	3.7	60.8	36.0	0.6	17.9	0.0	48.5	12.4
NE	44.4	7.4	18.6	15.1	0.1	23.3	29.8	9.4	0.0	0.0	29.7	12.3
CO	45.1	7.4	14.6	9.6	0.9	18.2	2.9	0.0	14.2	6.6	36.5	9.4
MT	40.3	10.7	8.0	9.2	0.7	10.9	28.7	16.6	2.3	4.5	16.8	10.4
ND	41.6	7.1	19.3	11.4	2.4	8.7	9.1	9.1	0.0	0.0	27.5	8.1
UT	46.9	6.5	33.3	0.0	8.5	6.9	0.0	0.0	0.0	0.0	45.7	6.5
AS	36.0	7.5	0.0	0.0	0.0	0.0	29.2	0.0	31.8	2.7	33.6	4.7
AZ	47.0	24.1	33.8	19.5	17.5	42.9	44.4	33.3	26.7	26.7	41.6	22.4
CA	44.6	4.8	0.0	0.0	0.0	0.0	0.0	0.0	29.2	10.2	44.2	4.9
GU	25.0	2.6	0.0	0.0	100.0	0.0	0.0	0.0	4.4	0.0	23.3	2.3
HI	36.6	2.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	0.5	30.5	1.6
NV	49.5	5.3	36.5	13.1	0.6	14.4	100.0	0.0	21.1	1.3	42.6	7.1
ID	24.3	6.1	0.0	0.0	0.4	7.2	4.3	7.1	8.3	2.8	14.2	6.6
OR	40.2	2.0	38.4	18.8	0.2	73.8	0.0	0.0	8.1	0.0	38.9	4.7
WA	49.3	2.4	8.2	3.6	0.0	0.0	0.0	0.0	5.3	3.0	30.0	2.9
	----	----	----	----	----	----	----	----	----	----	----	----
	40.4	6.4	23.1	9.6	1.3	15.3	27.1	7.0	16.9	1.7	36.4	7.0

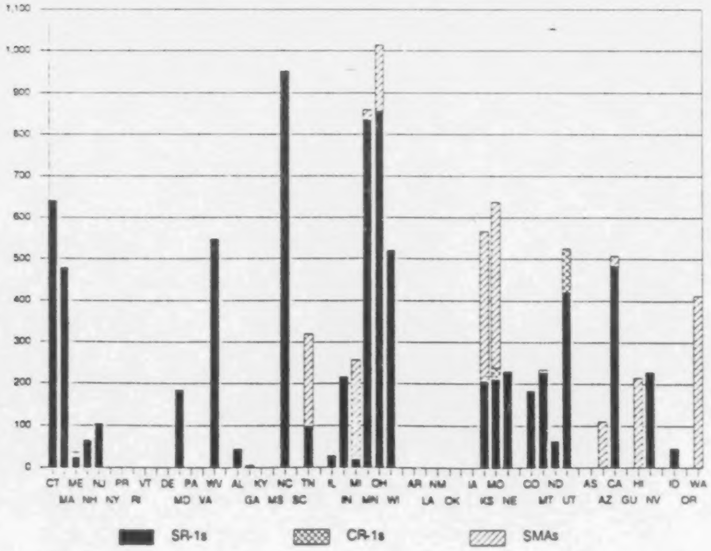

MCSAP Accomplishments - Fiscal Year 1989
By CVSA Inspection Type
Thousands of Driver / Vehicle Inspections
0
10
20
30
40
50
60
70
80
90
100
110
120
130
CT MA ME NH NJ NY PR RI VT
DE MD PA VA WV
AL GA KY MS NC SC TN
IL IN MI MN OH WI
AR LA NM OK
IA KS MO NE
CO MT ND UT
AS AZ CA GU HI NV
ID OR WA
N. Am. Std.
(Level 1)
Walk-Around
(Level 2)
Driver-Only
(Level 3)
Special
(Level 4)
Bus

MCSAP Accomplishments - Fiscal Year 1989

Out-of-Service Rates by CVSA Level

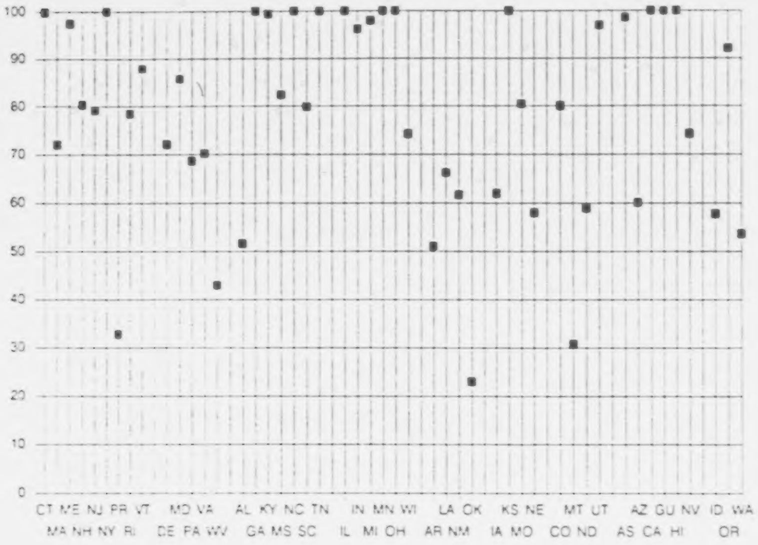


Carrier Reviews Conducted

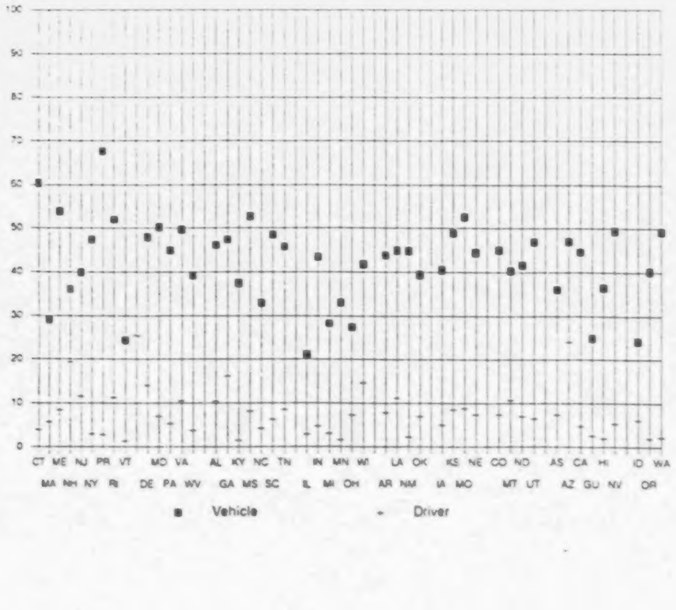


MCSAP Accomplishments - Fiscal Year 1989

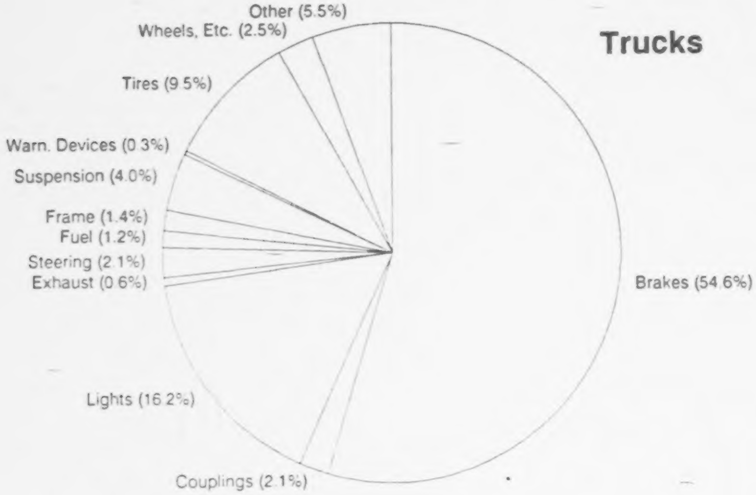
Percent Level One (incl. Bus)Inspections

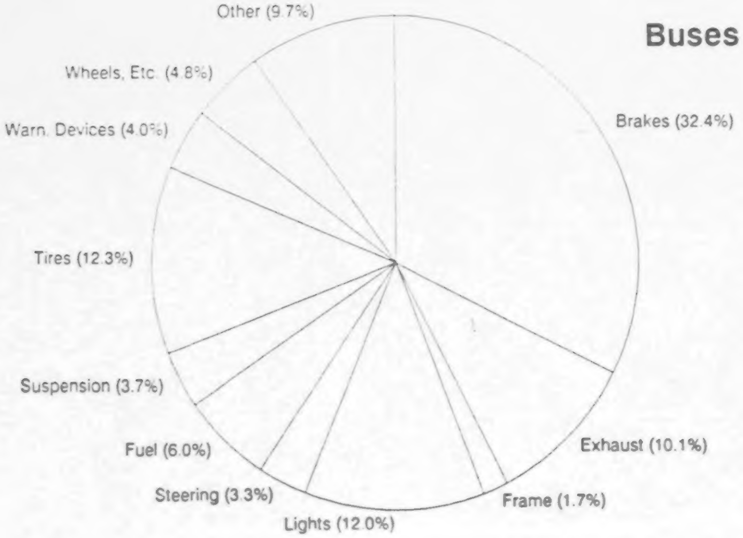


Out-of-Service Rates for Level 1 Insp. Only



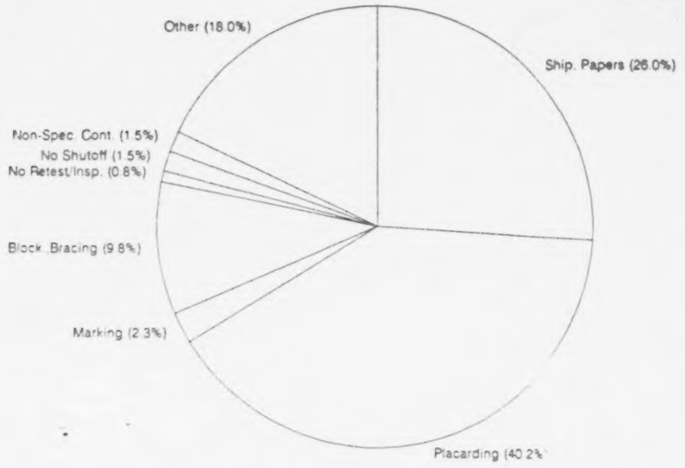
MCSAP Out-of-Service Violation Types - FY 1989





MCSAP Out-of-Service Violation Types - FY 1989

Hazardous Materials



MCSAP Out-of-Service Violation Types - FY 1989